



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

THE GIFT OF

Donna left. O state.

J
87

I 8Q

LEGISLATIVE DOCUMENTS

SUBMITTED TO THE

Thirty-first General Assembly

OF THE

STATE OF IOWA

Which Convened at Des Moines, January 8, 1906.

ALBERT B. CUMMINS,	- - - - -	Governor
JOHN HERRIOTT,	-	Lieutenant Governor and President of the Senate
W. B. MARTIN,	- - - - -	Secretary of State
B. F. CARROLL,	- - - - -	Auditor of State
G. S. GILBERTSON,	- - - - -	Treasurer of State
JOHN F. RIGGS,	- -	Superintendent of Public Instruction
CHARLES W. MULLAN,	- - - - -	Attorney-General
GEORGE W. CLARKE,	-	Speaker of the House of Representatives

VOLUME V.

DES MOINES:
BERNARD MURPHY, STATE PRINTER,
1906.

VOLUME I.

Message.

Inaugural.

Report of Auditor of State.

Report of Treasurer of State.

Report on Pardons.

Report of Criminal Convictions.

Report of Land Department.

Report of Custodian of Public Buildings.

VOLUME II.

Report of Railroad Commissioners, 1904.

Report of Railroad Commissioners, 1905.

Railway Assessment for 1905.

Railway Assessment for 1906.

Telephone and Telegraph Assessment for 1905.

Telephone and Telegraph Assessment for 1906.

VOLUME III.

Report of Adjutant General.

Report of Attorney-General.

Report of Librarian.

Report of Historical Department.

Report of Historical Society.

Report of State University.

Report of Iowa State College of Agriculture and Mechanic Arts.

Report of State Normal School.

VOLUME IV.

Report of Board of Control.

Report of Fish and Game Warden.

Report of Bureau of Labor Statistics.

Insurance Reports for 1906. { Volume I. Fire.
 { Volume II. Life.

ERRATA.

SCHOOLHOUSE FUND.—EXPENDITURES.

PAGE 8—COLUMN 1905.

For schoolhouses and sites	\$ 777,241.36
For libraries and apparatus.....	502.38
On bonds and interest.....	478,818.26
Paid for other purposes.....	196,078.41
<hr/>	
Total expenditures.....	\$ 1,447,440.36
On hand	552,737.60
<hr/>	
Total.....	\$ 2,000,177.96

CONTINGENT FUND—RECEIPTS.

PAGE 8—COLUMN 1905.

On hand at last report ...	\$ 772,662.94
Received from district tax.....	2,286,445.38
Received from other sources.....	810,770.27
<hr/>	
Total receipts	\$ 3,869,888.59

STATE OF IOWA

DEPARTMENT OF PUBLIC INSTRUCTION

DES MOINES

SUPERINTENDENT OF PUBLIC INSTRUCTION

JOHN F. RIGGS

DEPUTY SUPERINTENDENT

J. C. BENNETT

STENOGRAPHER

BYRDELLA JOHNSON

STATE BOARD OF EDUCATIONAL EXAMINERS

JOHN F. RIGGS, <i>ex-officio President</i> ,	-	-	-	-	Des Moines
GEORGE E. MACLEAN, <i>ex-officio</i> ,	-	-	-	-	Iowa City
HOMER H. SEERLEY, <i>ex-officio</i> ,	-	-	-	-	Cedar Falls
OWEN J. MCMANUS,	-	-	-	-	Council Bluffs
*MARIA M. ROBERTS,	-	-	-	-	Ames
VIOLA H. SCHELL, <i>Secretary</i> ,	-	-	-	-	Des Moines

*Succeeded Mrs. Alice Altona, whose term expired Feb. 14, 1905.

STATE OF IOWA

DEPARTMENT OF PUBLIC INSTRUCTION

DES MOINES

SUPERINTENDENT OF PUBLIC INSTRUCTION

JOHN F. RIGGS

DEPUTY SUPERINTENDENT

J. C. BENNETT

STENOGRAPHER

BYRDELLA JOHNSON

STATE BOARD OF EDUCATIONAL EXAMINERS

JOHN F. RIGGS, <i>ex-officio</i> President,	-	-	-	-	Des Moines
GEORGE E. MACLEAN, <i>ex-officio</i>,	-	-	-	-	Iowa City
HOMER H. SEERLEY, <i>ex-officio</i>,	-	-	-	-	Cedar Falls
OWEN J. MCMANUS,	-	-	-	-	Council Bluffs
*MARIA M. ROBERTS,	-	-	-	-	Ames
VIOLA H. SCHELL, <i>Secretary</i>,	-	-	-	-	Des Moines

***Succeeded Mrs. Alice Altona, whose term expired Feb. 14, 1905.**

*To His Excellency, ALBERT B. CUMMINS, Governor of the State
of Iowa:*

SIR;—I have the honor to submit herewith, as required by law,
the biennial report of the department of public instruction for the
period ending September 30, 1905.

JOHN F. RIGGS,
Superintendent of Public Instruction.

SUPERINTENDENTS OF PUBLIC INSTRUCTION.

TERRITORY AND STATE OF IOWA.

Name.	County.	Time.	Postoffice.
William Reynolds.....	Des Moines..	1841-1842	Deceased.
James Harlan.....	Henry	1847-—	Deceased.
Thos. H. Benton.....	Dubuque	1848-1854	Deceased.
James D. Eads.....	Lee.....	1854-1857	Deceased.
Joseph C. Stone.....	Johnson.....	1857-—	Deceased.
M. L. Fisher.....	Clayton	1857-1858	Deceased.
Oran Faville.....	Mitchell.....	1864-1867	Deceased.
D. Frahclin Wells	Johnson	1867-1868	Deceased.
A. S. Kissell.....	Scott.....	1869-1872	Deceased.
Alonzo Abernethy.....	Crawford....	1872-1876	Osage.
C. W. von Coelln.....	Black Hawk ..	1876-1881	New London.
J. W. Akers.....	Linn.....	1882-1888	Chicago, Ill.
Henry Sabin.....	Clinton	1888-1892	Des Moines.
J. B. Knoepfler.....	Allamakee....	1892-1894	Cedar Falls.
Henry Sabin.....	Clinton	1894-1898	Des Moines.
Richard C. Barrett.....	Mitchell....	1898-1904	Ames.
John F. Riggs.....	Keokuk.....	1904-—	Des Moines.

The office of Superintendent was abolished in 1842. Again in 1858 it was abolished and the duties were performed by the State Board of Education, of which Thos. H. Benton acted as secretary for five years.

PART I.

GENERAL SUMMARY OF STATISTICS.

DISCUSSION OF EDUCATIONAL TOPICS.

**RECENT CIRCULARS OF INFORMATION AND
SUGGESTIONS.**

WORK OF THE STATE READING CIRCLE BOARD,.

**WORK OF THE STATE BOARD OF EDUCATIONAL
EXAMINERS.**

SPECIAL DAYS FOR 1905.

GENERAL SUMMARY OF STATISTICS. SECRETARIES' REPORTS.

SCHOOL DISTRICTS.

	1895	1900	1905
School Townships.....	1,193	1,187	1,182
Independent Districts.....	3,614	3,686	3,766
Whole Number of Districts.....	4,807	4,873	4,948
Sub-districts....	9,280	9,423	9,403

SCHOOLS.

Ungraded.....	12,517	12,615	12,263
Rooms in Graded.....	4,777	5,766	6,607
Whole Number.....	17,294	18,381	18,870
Average Duration in Months.....	8	8	8

TEACHERS.

Males Employed.....	5,726	4,948	3,598
Females Employed.....	22,117	23,841	26,021
Whole Number.....	27,843	28,789	29,619
Average Monthly Compensation—Males.....	\$37.68	\$40.20	\$48.62
Average Monthly Compensation—Females. ...	\$31.63	\$30.24	\$36.06

SCHOLARS.

Between five and twenty-one—males.....	362,364	371,164	363,152
Between five and twenty-one—female....	350,577	359,990	355,630
Total enumeration.....	712,941	731,154	718,782
Enrolled in Public Schools.....	533,824	566,223	550,376
Total average attendance	339,300	373,474	375,563
Percentage enrollment on enumeration.....	.75	.78	.77
Percentage attendance on enrollment .....	.64	.66	.68
Percentage attendance on enumeration.....	.48	.50	.52
Average tuition per month per scholar.....	\$1.87	\$1.96	\$2.23

SECRETARIES' REPORT—CONTINUED.
SCHOOL HOUSES.

Whole number.....	13,613	13,861	13,993
Value.....	15,645,543	17,655,992	22,456,618

APPARATUS

Value.....	569,910	798,294	847,998
------------	---------	---------	---------

DISTRICT LIBRARIES

Number of Volumes.....	151,561	334,300	794,769
------------------------	---------	---------	---------

SHADE TREES ON SCHOOL GROUNDS

Number of Growing Trees.....	182,610	219,904	269,959
------------------------------	---------	---------	---------

TEMPERANCE INSTRUCTION.

Schools teaching effects of stimulants.....	16,987	17,510	18,218
---	--------	--------	--------

TREASURERS REPORT.

SCHOOL HOUSE FUND.

RECEIPTS.

	1885	1900	1905
On hand at last report.....	\$ 395,514.91	\$ 434,467.13	\$ 478,110.12
From district tax.....	739,887.26	803,850.14	960,811.22
From other sources.....	581,090.30	694,698.26	561,256.62
Total receipts.....	\$1,716 492.47	\$1,933,015.53	\$2,000,177.96

REPORT OF THE

EXPENDITURES.

For school-houses and sites.....	\$ 658,656.17	\$ 664,141.23	777,241.36
For libraries and apparatus.....	13,430.10	2,297.08	802.33
On bonds and interest.....	520,931.33	532,396.18	473,318.26
Paid for other purposes.....	169,834.33	158,856.09	145,120.90
Total expenditures.....	\$1,362,851.93	\$1,357,690.58	\$1,396,482.85
On hand.....	353,640.54	575,324.95	552,737.60
Total.....	\$1,716,492.47	\$1,933,015.53	\$1,949,220.45

CONTINGENT FUND.

RECEIPTS.

	1895	1900	1905
Onhand at last report... ..	\$ 543,215.48	\$ 708,241.07	\$ 772,662.94
Received from district tax	1,631,354.76	1,675,388.91	228,445.38
Received from other sources.....	221,397.58	234,340.19	310,770.27
Total receipts.....	\$2,395,949.82	\$2,617,970.17	\$3,369,888.59

DISBURSEMENTS

For fuel, rent, repairs, etc.....	\$1,114,181.10	\$1,282,340.35	\$1,707,536.51
Paid secretaries and treasurers.....	137,673.02	142,387.61	156,167.09
For records and apparatus.....	.....	43,305.06	39,912.37
For library books and dictionaries.....	.....	16,705.36	19,028.35
For free text-books.....	.....	23,219.04	26,393.53
For text-books and general supplies.....	209,365.61	182,251.40	146,893.94
For other purposes.....	344,687.57	279,239.14	397,056.27
Total expenditures.....	\$1,805,907.30	\$1,969,447.96	\$2,492,988.06
On hand.....	590,042.52	648,522.21	876,900.53
Total disbursements.....	\$2,395,949.82	\$2,617,970.17	\$3,369,888.59

TEACHERS' FUND

RECEIPTS

	1895	1900	1905
On hand at last report.....	\$2,058,200.86	\$2,719,465.88	\$3,231,405.69
From district tax.....	4,305,995.81	4,715,506.75	5,969,517.74
From semi-annual apportionment.....	838,531.56	816,581.22	897,490.41
From other sources.....	140,508.48	187,205.91	208,652.93
Total receipts.....	\$7,343,236.71	\$8,438,759.76	10,307,066.77

TREASURERS REPORT—CONTINUED.

EXPENDITURES

Paid teachers.....	\$5,075,492.37	\$5,606,932.59	\$6,745,416.24
Paid for other purposes.....	73,623.01	94,848.06	69,484.30
Total expenditures.....	\$5,159,115.38	\$5,701,780.65	\$6,849,181.50
On hand.....	2,194,121.33	2,736,979.11	3,457,885.27
Total.....	\$7,343,236.71	\$8,438,759.76	10,307,066.77

COUNTY SUPERVISION.

EXAMINATION OF TEACHERS.

	1895	1900	1905
First grade certificates issued.....	11,848	3,308	3,649
Second grade certificates issued	14,336	14,131	14,205
Third grade certificates issued.....	1,145	7,144	5,531
Other certificates issued.....		723	1,026
Total number issued.....	27,329	25,306	24,411
Applicants rejected.....	5,225	4,456	4,702
Total number examined.....	32,554	29,762	29,195
Certificates revoked.....	4		
Average age of applicants.....	22 8	22	22
No experience in teaching....	3,876	3,560	4,131
Taught less than one year.....	3,852	4,208	4,340
With state certificates or diplomas.....	677	1,285	1,557

VISITATION OF SCHOOLS.

Schools visited	11,692	9,912	10,487
Visits made during the year.....	15,167	12,343	12,646
Educational meetings held.....	1,098	1,128	795

APPEALS.

Number of cases.....	62	43	23
----------------------	----	----	----

COMPENSATION.

Total paid County Superintendents.....	\$ 120,780.00	\$ 120,978.00	\$ 125,889.00
Average received per annum.....	\$ 1,220.00	\$ 1,222.00	\$ 1,272.00

REPORT OF THE
TEACHERS NORMAL INSTITUTES

	1895	1900	1905
Number of institutes held.....	99	99	99
Continuing weeks.....	2.3	2.1	1.8
Males in attendance.....	3,678	2,412	1,718
Females in attendance.....	18,682	17,132	17,207
Total Attendance.....	22,360	19,544	18,925

INSTITUTE FUND.
RECEIPTS.

On hands at last report.....	17,988 14	14,564 88	14,885.12
Examination fees.....	32,822.00	32,588.00	32,763.00
Registration fees.....	22,360.00	19,544 00	19,075.00
State appropriation.....	4,950.00	4,950.00	4,950.00
From other sources.....	737.29	1,437.16	540.96
Total.....	78,857.43	73,084 04	72,214.08

EXPENDITURES

For Instruction and lectures.....	\$ 48,579.39	\$ 51,711.51	\$ 49,110.97
For incidentals.....	10,483.79	6,963.17	6,685.26
On hand.....	19,794.25	14,409.36	16,417.85
Total.....	\$ 78,857.43	\$ 73,084.04	\$ 72,214.08

PERMANENT SCHOOL FUND,

Amount in September.....	.....	.....	\$4,760,520.54
Interest on the same .....	.....	.....	214,132.30

THE COST OF OUR SCHOOLS.

	1895	1900	1905
For teachers salaries.....	5,075,492.37	5,606,932.59	6,745,416.24
For school houses, apparatus, etc.....	736,719.66	707,446.29	817,153 73
For general contingencies.....	2,505,662.58	2,714,540.31	3,227,039.95
Total.....	8,317,874.61	9,028,919.19	10,789,609 92

COMPUTED ON TAXABLE PROPERTY.

NUMBER OF MILLS FOR EACH DOLLAR OF ASSESSED VALUATION

Teacher salaries. ....	.....	10.4	10.8
School houses, apparatus, etc.....	.....	1.3	1.3
General contingencies.....	.....	5.3	5.3
Total.....	.....	17.	17.4

ON ESTIMATED POPULATION.

FOR EACH INDIVIDUAL OF ENTIRE POPULATION.

Teachers salaries.....	2.47	2.52	3.05
School houses, apparatus, etc.....	.36	.32	.37
General contingencies.	1.22	1.22	1.47
Total.....	4.04	4.06	4.89

ON SCHOOL ENUMERATION

FOR EACH YOUTH BETWEEN FIVE AND TWENTY-ONE

Teachers salaries.....	7.12	7.67	9.38
School houses, apparatus, etc.....	1.03	.97	1.14
General contingencies.....	3.53	3.71	4.49
Total.....	11.68	12.35	15.01

ON TOTAL ENROLLMENT.

FOR EACH PUPIL ENROLLED IN SCHOOL.

Teachers salaries.....	9.51	9.90	12.26
School houses, apparatus, etc.....	1.38	1.25	1.48
General contingencies.....	4.69	4.79	5.86
Total.....	15.58	15.94	19.60

ON AVERAGE ATTENDANCE

FOR EACH PUPIL ACTUALLY IN ATTENDANCE THE AVERAGE TIME

Teachers' Salaries.....	15.38	15.01	172.1
School houses, apparatus, etc..	2.24	1.89	.536
General contingencies.....	7.46	7.27	8.98
Total.....	25.08	24.17	28.79

TABULAR EXHIBIT SHOWING THE GROWTH OF THE PUBLIC

*The state census for the same year shows 722,496.
†Including independent districts.
‡Rooms in town and city schools.

SCHOOL SYSTEM OF IOWA FROM 1847 TO 1905 INCLUSIVE.

THIRTY-SECOND BIENNIAL REPORT OF THE SUPER-
INTENDENT OF PUBLIC INSTRUCTION.

IN GENERAL.

With \$20,000,000 invested in public school buildings and equipment, and with an annual expenditure of over \$10,000,000 for the support of our public schools, and the erection of new buildings, the people of Iowa give proof of a loyalty to the cause of education that no one can question. In addition to this vast outlay for the benefit of the more than 540,000 children enrolled annually in the public schools of our state, must be added the money spent in support of the nearly 300 parochial schools, the numerous academies, business colleges, private normal schools, colleges and universities,—institutions employing in the aggregate 1984 professors and teachers and enrolling annually more than forty-two thousand students. Vast as is the amount we spend annually in supporting our schools of all classes and grades, it is imperative that there shall be no retrenchment. Indeed in hundreds of districts the present expenditure is inadequate for the work attempted. The problem set before each of the 4948 school boards of Iowa is not how to run the school with the fewest dollars, but how the school may be made the most efficient.

“No common school system” says Horace Mann “can ever succeed where the compensation is so meager as to encourage only those of the most ordinary talents and attainments to embark in it.”

It is a hopeful sign of the times that teachers' salaries in Iowa have advanced \$2.63 per month for males and \$3.46 per month for females within the biennial period covered by this report. But in thousands of schools the wages are yet too low to attract and hold the best teaching talent. Indeed the advance in teachers wages in recent years has out run but little the increased cost of living, and has barely kept pace with the advance in wages in other lines of work. So many remunerative occupations are now open to promising young men and young women, that many whose services are sorely needed in the schools cannot be induced to enter the teaching profession. The loss of men from the

teachers' ranks is particularly noticeable. Forty years ago 37 out of every one hundred teachers employed in Iowa were men; twenty years ago 31 out of every one hundred were men; while for the year just closed there were but 14 males out of every one hundred Iowa teachers. For the United States as a whole the percentage of male teachers has decreased from 42.8 per cent in 1880 and 28.8 per cent in 1900.

With the teachers' tenure more permanent and with a decided advance in the salaries paid, men as well as women would be attracted to the profession in greater numbers and a larger per cent of both would come to their work with that thorough preparation so essential to the highest success of the school.

SUMMARY OF RECOMMENDATION.

1. A uniform system of examining and licensing teachers and accepting scholastic work of superior grade in lieu of a part or all of the examination for a state certificate. (See page 23 part I, and pages 147 to 154, part II.)

2. A change in the time of receiving the secretaries' and treasurers' reports, from the third Monday of September to an earlier date thus making all school reports due *after* the close of the schools in early summer, and before the opening of the schools in the fall. (See page 19, part I.)

3. To authorize the change of boundaries between contiguous school corporations in such a way that consolidated districts may be more easily established. (See pages 20 to 23, part I, and section 5, page 139, part II.)

4. To require the county board of supervisors to audit and allow claims for the traveling expenses of the county superintendent while in the performance of official duty. (See page 16, part I.)

5. To grant state aid on basis of average daily attendance to such high schools as maintain a prescribed standard of work. (See page 18, part I.)

6. To provide competent inspection of school buildings. (See page 28, part I.)

7. To increase the possible amount that may be levied in any school corporation for transporting children to and from school. (See page 27, part I.)

WORK OF THE COUNTY SUPERINTENDENT.

The work of the County Superintendents of the state, taken as a whole, is growing constantly in efficiency. No other office in the county is more important or requires qualifications of so high an order.

The County Superintendent's work is distinctly supervisory and he should be relieved as far as possible from clerical duties. His work is more in the field than within the four walls of his office. He renders the greater service by school visitation, by conducting county and township educational meetings, and by mingling with the people where educational questions may be discussed and educational sentiment be strengthened.

A large and important part of the county superintendent's work is necessarily away from the county seat. That Iowa county superintendents within the biennial period have made 12646 visits to schools and have conducted 795 educational meetings is an eloquent tribute to their integrity and energy, in view of the fact that such work is optional and not obligatory. The law offers a premium for inactivity, since the superintendent is at far less expense in his office than when out among the schools.

In my opinion it is both unjust and impolitic to deny the county superintendent his reasonable expenses when absent from his home in the performance of official duty. The law should require the county board of supervisors to audit and allow claims for traveling expenses for this officer, within definite limits for any month, and should require that such claims be itemized and sworn to by the county superintendent.

HIGHER EDUCATION.

That there is an unmistakable trend toward higher education on the part of Iowa youth is evidenced by the fact that the at-

tendance upon our three state schools has increased from 2548 in 1895 to 4013 in 1905, and the attendance upon our fifteen standard denominational colleges has, within the same period increased from 4414 to 6668. In other words the state schools taken together have made a gain of 57.4 per cent and the denominational colleges a gain of 51 per cent within ten years. The enrollment given does not include the 1574 students enrolled in the summer schools of the State Normal and State University and the short courses of the Agricultural College; nor the 576 students enrolled in the summer schools of Simpson, Drake and Morning Side Colleges.

Then aside from the institutions to which reference has just been made a number of private colleges of high grade are in a prosperous condition and with a rapidly growing patronage.

The growth of our high schools and colleges is all the more noteworthy when it is remembered that the state has, within the time mentioned, gained but 7.4 per cent in population.

STATE SCHOOLS.

Iowa takes pardonable pride in her three great state schools. Each in its class easily ranks with the very best in the country. For the maintenance of the present high standards and for the further development of these schools, the broad liberal policy that has obtained in the past should be continued. With the laboratory method of instruction and with each department in charge of a trained specialist the cost of maintenance is necessarily much greater than formerly when the didactic method of instruction obtained. That, through the introduction of modern methods, the efficiency of these schools has been greatly increased there can be no question. In the light of the work accomplished and its great importance to the state the annual expenditures are reasonable and the askings of the various boards for the next year will be found to be based upon the immediate and urgent needs of these institutions.

PRIVATE AND DENOMINATIONAL COLLEGES.

Our large number of private and denominational colleges do a most valuable public service without cost to the state. Each

year these schools graduate a large number of young men and women, who, in the main, become leaders in the various vocations in which they engage and in a marked way raise the average intelligence and efficiency of the state as a whole.

HIGH SCHOOLS.

•

The number of schools in Iowa offering one or more years of work above the grammar grades has rapidly increased within the past twenty-five years and particularly within the last half of that period. At the present time, there are not less than 600 village, town and city schools doing work of high school grade. Of these 174 are reported as carrying a three year course, and 354 as carrying a four year course. Our high schools graduated in the aggregate 2018 boys and 3299 girls in 1905. Of these graduates 1174 are now enrolled in higher institutions of learning and 1039 are engaged in teaching. While very many of our high schools are doing superior work, it is to be regretted that there is no attempt at uniformity in the courses pursued except in those schools (less than one-fourth of the entire number) carrying work that fits for entrance to the University and the Standard Colleges of the state.

Each school board has practically a free hand in the matter of determining the high school course of study and thereafter in modifying it at will. While section 2776, of the school laws provides that the "course of study shall be subject to the approval of the superintendent of Public Instruction," there is no penalty for the board that does not submit its course for approval, or that adopts a course other than that recommended by the Superintendent of Public Instruction. Nothing approaching uniformity can be expected in the courses for either class of high schools or in the qualifications of the teachers in the same so long as each school board is a law unto itself in these matters.

A regrettable tendency in small towns and villages is to put in courses of study advanced far beyond the ability of the corporations to adequately support. In consequence the one or two teachers employed are overburdened and the work is often poorly done.

There should be standard courses for schools doing two years, three years, or four years of high school work, and full recognition should be given each class of schools for the work done.

But confusion and uncertainty will exist so long as courses are merely "recommended" and the school boards, principals, and superintendents are left to follow their own inclinations. Both in Wisconsin and Minnesota the state gives financial aid to such high schools as maintain a standard defined in the law.

In my opinion the law in this state should clearly define the various classes of high schools and should name the special qualifications to be possessed by teachers in such schools. Then to insure a compliance with the law, state aid, in an amount to be determined, should be given those schools that comply in all respects with the law.

A detailed report on the high school courses, with the faculties, for the school year 1905-1906 will be found in the last chapter of this report.

DEFINING THE SCHOOL YEAR.

Since school directors are elected and qualify in March, one school year defined in the law begins with the induction into office of the newly elected directors; but since the school secretaries and school treasurers make their annual reports on the third Monday in September, the fiscal school year begins on this date. Again it is common to speak of the school year as beginning with the opening of school in September and ending with the close of school in June or July. There is, therefore, ambiguity in the term "school year." A serious confusion often results, making it difficult to get uniform or accurate reports from school officers.

The requirement that newly elected directors shall assume their duties on the third Monday in March is unfortunate. It would be much better if it were the first of July instead. At present one of the first duties the new board exercises is to elect teachers for the spring term, thereby encouraging a general change of teachers, and disturbing the unity of the school work

which logically should continue without interruption until the beginning of the long summer vacation. This difficulty would entirely disappear if the newly elected directors were to assume office in June instead of March.

It would also be a distinct advantage to have the regular fall meeting brought forward from the third Monday of September to the first of July, making the fiscal school year begin on that date. All our annual reports would then cover the same period, and much of the present confusion and inaccuracy would disappear. Such a change would also make the reports of school officers available two and one-half months earlier than at present, and thus enable the county superintendents to begin the work of school visitation soon after the opening of the schools in September.

THE LARGE VERSUS THE SMALL DISTRICT.

Attention is called to the statistics of country school enrollment and attendance, found on pages 96 to 107 part II of this report where it is shown that over 60 per cent of the rural schools of the state have an average daily attendance of 15 or less, while in fully five hundred of these schools the average daily attendance is 5 or less.

A school house within easy walking distance of every dwelling in the state has always been a popular doctrine with the people. A square containing just four sections, with nine of these squares in a civil township, and each square a little school world in itself, has to the popular mind seemed so ideal that any interference with the established order has always raised bitter opposition. That our present system of small districts is usually extravagant and is often the direct cause of inefficient schools cannot be questioned by anyone who will give thorough study to the question.

The agitation for large districts is not new, as many suppose. The foremost educators of the country have steadfastly opposed the plan of small districts.

In 1856 the General Assembly of Iowa appointed a commis-

sion to revise the school laws. America's most eminent educator, Horace Mann, was one of the commissioners and Amos Dean, Chancellor of the State University, the other. While in the report submitted to the general assembly the district organization was provided for, it was not in accordance with the best judgment of the commissioners, who followed the recommendation with this qualification:

"Your commissioners, however, feel bound to say that they have presented this organization simply in reference to the existing state of things. Their own settled convictions are, that the whole district system, as stated in the bill, should be promptly discontinued. * * *

The commissioners then set forth many cogent arguments in defense of the large district, among which are the following:

"It greatly reduces the number of district boards of directors, and consequently limits the expenses attending these boards."

"It renders the position of president of the board more honorable, makes it a higher mark of distinction, gives a larger scope for a choice, and will tend to secure for it a higher grade of talent and attainment."

"It leads to the creation of more commodious schoolhouses with larger accommodations and means of instruction."

"It tends to secure the services of more accomplished teachers."

"It offers facilities for classifying those of different ages and attainments, and for employing different grades of teachers in their instruction."

Hon. Maturin L. Fisher in his report of 1857 favored the Township as the school unit.

Hon. Thomas H. Benton, in his report of December 5, 1859 says: "I concur fully with the late superintendent of public instruction, Mr. Fisher, in regard to large districts. They give us a much more efficient and less expensive organization." "It is," says Mr. Benton, "to be regretted that the early educators and legislators of the country have incorporated the feature of

small districts into their country school systems. The precedent established by them has obtained so firm a hold on the public mind that none of those who have succeeded them are willing to assume the responsibility of departing from it."

In the year 1860, Hon. Samuel L. Howe, Co. Supt., of Henry County, said:

"I think our school system will never be satisfactory whilst the subdistrict plan is continued. I would abolish all subdistricts and give the township boards powers sufficient to meet all exigencies created thereby."

Hon. A. S. Kissell in his report dated January 1, 1872, makes a strong plea for the abandoning of all sub-district boundaries, making the township the district unit without subdivisions. This recommendation of the state superintendent was cordially commended by Governor Merrill in his message to the general assembly.

Hon. Alonzo Abernathy in his report of 1874 says:

"Efficiency can never be secured in the management of the schools and school funds where districts are so small as to impose but slight responsibility upon district officers, nor can the state ever know from any reports or statistics that can be obtained from such officers, what portions of the funds are judiciously expended."

Hon. C. W. von Coelln in his biennial report of 1874 says:

"The civil township should be the unit but it should not be subdivided into subdistricts, to be in part governed by a sub-director."

The quotations just given show that the agitation for larger districts and fewer schools was started in Iowa a half century ago. It was not, however, until recent years nor until after the experiment had proven successful in other states that transportation of pupils at public expense came to be advocated in Iowa. The civil township as a school district and transportation of all pupils to one school near its center can be effected under our laws as they now stand. But in the

opinion of very many people the civil township is too large for a single consolidated district, yet too small to be subdivided.

If the laws were so changed that the voters in any number of contiguous school corporations could redistrict in such a way as to best serve the interests of the children, the important work of eliminating weak, inefficient and expensive schools would go forward much more rapidly and with better satisfaction to all the people in interest.

The following table in which the statistics of graded schools and ungraded schools are separated, shows that the school year is one month longer in the graded than in the ungraded school. The table also shows that the enrollment *per room* is 73 per cent greater and the average daily attendance 100 per cent greater in the graded than in the ungraded school.

PUBLIC SCHOOLS.

Independent city, town and village and rural corporations.
School year 1904-1905.

	Class of Corporation—Totals.			Avg. per Corporation.		
	City and Town.	Rural.	State.	Class of Corporation.		
				City and Town.	Rural.	State
Number of corporations.....	858	4,090	4,948	.....	.....	.....
Number of rooms.....	6,607	12,268	18,870	7.7	3	3.8
Average No. months in year....	8.8	7.8	8	8.8	7.8	8
Number of teachers employed, males.....	1,099	2,499	3,598	1.3	.6	.7
Number of teachers employed, females.....	6,832	19,689	26,521	7.8	4.8	5.3
Total enrollment.....	268,676	281,700	550,376	818	69	111
Total average attendance.....	198,844	177,219	376,063	281	48	76
Value of schoolhouses.....	\$15,894,482	\$ 7,062,186	\$22,956,668	\$ 17,942	\$ 1,727	\$4,542
Value of apparatus.....	\$ 866,196	\$ 481,808	\$ 1,347,998	\$ 427	\$ 118	\$ 171
Number of volumes in libraries	330,807	463,962	794,769	886	118	161
Paid for teachers salaries.....	\$ 2,480,850	\$ 8,264,566	\$ 10,745,416	\$ 4,057	\$ 798	\$1,863

THE EXAMINATION AND CERTIFICATION OF TEACHERS.

Attention is called pointedly to our laws governing the granting of teachers' certificates and to the urgent need for their thorough revision.

Certificates as now issued in Iowa are of two general classes.
First. Those issued by the State Board of Educational Examiners, and valid in any county of the state, and

Second, Those issued by the County Superintendent, and valid only in the county in which they are issued.

No certificate of either class can be issued except upon examination.

The work of the state board has so far outgrown the law under which it operates that the board is seriously handicapped.

The law gives the board authority to employ a secretary, but no additional clerical help can be employed however urgent the need of such help may be. Not to exceed two persons can be employed to assist in the work of any examination. The expenditures of the board cannot exceed \$1500 in any year for all purposes, including the salary of the secretary, the traveling expenses and per diem of members, and the expenses incident to the inspection of accredited schools, the last named duty imposed, since the statute limiting the powers of the board was enacted.

The restrictions that embarrass the board should be removed and authority be granted it to employ such help as may be required—the total expenditures for any year to be within the aggregate amount collected in fees for that year. The board should also be given some discretion in the matter of validating state certificates from other states, and diplomas from colleges and normal schools of high rank. Such legislation has been enacted in many of the states. The licensing authorities in most of these states have entered into reciprocal relations so that a certificate of high grade issued in one of the states is honored in the others. But a certificate of high grade issued by the state educational board of Iowa has no recognition out side of Iowa for the reason that we are not permitted to validate any certificate issued in another state.

The granting of county certificates is vested solely in the county superintendent. While having as a guide the general directions issued by the superintendent of public instruction, the county superintendent, in practice sets his own standard since his markings may be rigid or they may be exceedingly liberal. In one county a mark of 90 per cent may mean no more than 70 per cent in another county. The county superintendent is also

subjected to the importunity of the relatives and friends of unsuccessful candidates and has ever before him the temptation of straining a point that a certificate may be issued to this or that applicant who has in fact failed in the examination.

Hon. Richard C. Barrett, in his Second Biennial Report, states the following objections to our present system of issuing certificates:

1. That county superintendents are not uniform in their markings. That so long as we have ninety-nine county superintendents we shall have as many different standards.

2. That the ideals of what teachers should be are so low in some counties that teachers holding first-class certificates in those counties could obtain only a second or third class in others.

3. That since the county superintendent is the product of a political party, he is expected to recognize his political friends in the granting of certificates.

4. That because of his authority to grant certificates, he is tempted, biennially at least, to be less stringent in the granting of the same, and as a consequence schools are often supplied with immature and incompetent teachers.

5. That being the sole judge of the fitness of applicants, he often becomes careless and negligent. That of one candidate he demands a full and complete examination, while to others certificates are issued, because of attendance upon the institute or teachers' association.

6. That he is in some instances so partial as to grant certificates to teachers in certain grades who are so utterly lacking in scholarship as to be unable to pass the examination required of other candidates.

"It is not contended by anyone," says Mr. Barrett, "that all of these charges are true in a single county but that they are all true when the state as a whole is considered."

A further discussion of our certificate system with proposed changes in our laws on this subject will be found at pages 147 to 154 of part two of this report.

There should in my judgment be but one authority in the state charged with the duty of licensing teachers. In no other way can we have anything approaching a uniform standard.

I am strongly of the opinion that those sections of the law referring to the examination and certification of teachers should be rewritten and brought into harmony and that the licensing power be placed either in the hands of the superintendent of public instruction or in the hands of the State Educational Board of Examiners, and that the certificate be made valid in any county of the state.

Under this system the County Superintendent would be enabled to devote from 25 to 40 days more per year than at present in the work of school supervision. The value of this additional work in the schools would outweigh many fold over any additional cost incident to the change of system recommended.

The law now requires every applicant for a county certificate to pay an examination fee which cannot be less than \$1 for each year the certificate is to run; and with the lower class of certificates the period may be as much less than a year as the County Superintendent may determine. All fees so collected go to the support of the Normal Institute.

With applicants for the state certificate a fee of \$3 is required, no part of which goes to the support of the Normal Institute, but all of which is paid into the state treasury.

We now have in force 2861 state certificates and diplomas which means an annual loss of an equal number of dollars in the aggregate to the Normal Institutes.

If the state is to continue the policy of requiring the teachers to support the Normal Institutes by fees, the burden should be distributed equally among the teachers. It is, therefore, recommended that no certificate or diploma should be valid in any county until it is registered by the County Superintendent of the county, and that a registration fee of fifty cents be required, the same to be paid into the institute fund. This would permit a reduction in the examination fees now charged for the higher classes of certificates and would result in a more equitable ad-

justment of the burdens. The forwarding of all examination manuscripts to the Capitol of the State where they would be read and marked and the result of the examination be determined under state authority, would entail an expense which, it is estimated would be not less than fifty cents for each person examined.

Since the number of persons to be examined within the biennial period cannot be estimated with any degree of accuracy, a direct appropriation from the state treasury is not advised, but it is recommended instead that one-half the fees collected by the County Superintendent be paid into the state treasury and that the expenses be met from the fund thus created. It would then be necessary for the Legislature to increase the annual institute appropriation provided for in section 2626 of the code.

For thirty and more years the state has paid \$4950 annually toward the support of the 99 Normal Institutes. This is at present 8.8 per cent of the cost of their maintainance. The state pays under certain conditions \$100 annually toward the expenses of each County Agricultural Fair and \$75 annually toward the expenses of each Farmers' Institute, and \$50 annually toward the support of the Teachers' Normal Institute.

More than twenty per cent of the counties do not maintain either a county fair or a farmers' institute; yet for the last fiscal year the state paid a little less than \$20,000 toward the expenses of the county fairs and farmers' institutes in the other counties.

The state in other lines has been generous and wisely so and it is believed that no serious objection will be offered to an increase in the state apportionment for the support of Normal Institutes, thereby permitting a percentage of the examination fees to be paid into the state treasury to meet the expenses incident to the state system of examining and licensing teachers.

TAX LEVY FOR TRANSPORTING CHILDREN TO AND FROM SCHOOL.

Section 2806 of the school laws provides for a maximum levy of five dollars for each person of school age for transporting children to and from school. This amount is entirely inadequate where a large number of children are transported, as in the town-

ships having but one school located at or near the center of the township. In such townships a very marked saving is effected in teachers' salaries, since fewer teachers are required, but the cost of transportation is necessarily heavy.

This is a local matter. The school board is directly amenable to the people. No member of the board can be legally employed to transport pupils. There is in all this assurance that the transportation will be effected at the lowest possible cost consistent with efficient service. No statutory limitation is necessary to insure economy.

HEATING, LIGHTING, AND VENTILATION OF SCHOOL BUILDINGS

For the biennial period an aggregate of \$777,241.36 was expended in Iowa for new school buildings.

Attention is called to the fact that the law requires no expert supervision of the architecture of these buildings including plans for their heating and ventilation.

The school directors having charge of the construction of new buildings or of the remodeling of old ones are men of intelligence and business ability, but they do not have the expert knowledge that will guide them safely in adopting plans for the construction and equipment of such buildings. In such matters they are sometimes unwittingly led into error by the plausible but erroneous representations of shrewd agents.

In my judgment the law should require certain essential things in the matter of heating, lighting, and ventilation of school buildings, and should provide competent inspection to insure its being carried into effect wherever a new building is to be erected or an old one remodeled.

It is of the greatest public concern that the physical surroundings of every school room and building be such that the health of the children be not endangered.

AN EXAMPLE WORTHY OF EMULATION.

Early in the present school year Mr. J. L. McCaull of Minneapolis, but formerly a resident of Garden Grove Township in

Decatur County, offered one hundred dollars to be given in cash prizes to the three rural schools in Garden Grove Township that should do the most in beautifying the school grounds and making the school room inviting.

Under this stimulus teachers and pupils in every school of the township put forth special effort with the result that public interest in the school environment was aroused and much good was accomplished.

The contest closed on June first, when a committee, appointed by the county superintendent, visited each school in the township and awarded the prizes.

ACCREDITED SCHOOLS FOR THE TRAINING OF TEACHERS.

The twenty-ninth general assembly passed a law providing for the "inspection, recognition and supervision of schools for the instruction and training of teachers for the common schools, and providing for the licensing of the graduates of the same." Under this law the following named academies, private normal schools and colleges have been inspected and their courses of study, faculties and equipment approved by the state educational board of examiners:

Buena Vista College, Storm Lake; Cedar Valley Seminary, Osage; Central University, Pella; Cornell College, Mount Vernon; Decorah Institute, Decorah; Denison Normal College, Denison; Drake University, Des Moines; Ellsworth College, Iowa Falls; Epworth Seminary, Epworth; Highland Park College, Des Moines; Humboldt College, Humboldt; Lenox College, Hopkinton; Simpson College, Indianola; Tobin College, Fort Dodge; Upper Iowa University, Fayette; Western College, Toledo; Western Normal College, Shenandoah; Western Union College, LeMars; Woodbine Normal, Woodbine.

Doubtless the law has not been in effect for a sufficient length of time to justify a safe opinion as to its value. The presidents of the larger institutions, such as Drake University, Simpson College, Cornell College and Highland Park College, report that

the law has had little, if any effect in their respective schools,—students in preparation for the work of teaching preferring to take the regular courses and at their completion write for the five year state certificate.

The president of Drake University has formally withdrawr his institution from the list of accredited schools and to all appearances the law is at present a dead letter in a few other schools on the list. In a majority of the schools, however, the law is favorably regarded by president and faculty.

The last inspection was made during the months of January and February, 1905 by the following persons: Mrs. Alice Altona, Miss Maria Roberts, Sup't O. J. McManus, Mr. J. C. Bennett, Pres't H. H. Seerley and President George E. MacLean.

President Seerley in his report on Cornell College Academy makes the following observation:

“While this acadamy has been on the accredited list from the beginning of the system, and while much attention has been given by the college authorities to the distribution of circulars making announcements concerning the plan of securing a two year state certificate, and while the college catalogue has given thorough recognition of the same thing by devoting a pago to explaining the facts, the students who graduated from this course have not seen fit to avail themselves of the opportunity thus given and such certificate has not been eagerly sought, it being stated that not over three such candidates have been known during the time the arrangement has been in force.”

County Superintendent McManus, after completing his inspection, makes this observation:

“I believe that the state course would be more popular if the students were not required to pass an examination in all the subjects upon the completion of the same. If the state board were permitted to send examination questions for each subject as it is completed and have the students' papers sent in for grading, accompanied with an affidavit from the president of the school to the effect that the student received no help, it would do away with the bug bear of the final examination, encourage the students to do their best class work, raise the school in the estimation of the students by entitling its graduates to the two year state certificate without any further examination, and lessen the expenses to

the state for examination,—all of these without lessening the supervision of the state board.”

Mr. Bennett in his report says:

“That the law in question has accomplished but little is patent to all. The reason is evident. It authorizes the educational board of examiners to prescribe a course of study and accredit schools, but it does not permit the board to give credit for work done in such institutions. I believe the educational board of examiners should have discretionary power to credit any or all of the work in a prescribed course of an accredited school and excuse the graduate from such course from so much of the examination as the board sees fit. I believe also that one who has completed a more extended course than the one prescribed as leading up to the two year state certificate should be eligible to the examination for that certificate if he has taken an equivalent amount of work in all subjects required in the prescribed course. We now have the anomaly of one who although having completed a longer course, superior it may be in all respects, is not eligible to this examination because not graduated from this particular course. The prescribed course should indicate the minimum and not the only course.”

While the law under consideration has not met with the degree of success its friends anticipated, the experimental stage is not passed, and with slight modification it may become of great benefit alike to the smaller colleges and to the common schools.

In addition to the recommendations quoted from the reports of Messrs. McManus and Bennett, I would advise the annual visitation be made optional with the board in any particular case and not obligatory as at present. After two or three annual inspections the board can often determine from written reports the status of the school and the character of work being done; and in such cases it is a needless expense to the state to send an inspector.

AGRICULTURE IN COUNTRY SCHOOLS.

Within very recent years there has been a rapidly growing sentiment not only in Iowa but throughout the country, in favor of the teaching of agriculture in rural schools. This sentiment has in some states crystalized into law requiring that agriculture be taught in every country school.

The wisdom of such legislation in Iowa as conditions now exist may be seriously questioned. But a very small per cent of the teachers in any county have the kind of knowledge that would enable them to give this instruction. To require those without knowledge of the subject to at once organize classes in agriculture would mean abortive teaching or teaching so extremely elementary as to be of practically no value.

If we are to have legislation looking to the teaching of this important subject it would better be directed toward the teacher's preparation, requiring after a prescribed time, that every applicant for a teacher's certificate show a reasonable knowledge of the principles and laws underlying the science of agriculture. In many counties the teachers under the direction of the County Superintendent are giving considerable attention to this subject. The following table will show the status of the work for the last school year as reported by county superintendents

COUNTIES IN WHICH SOME ATTENTION IS GIVEN TO THE TEACHING OF ELEMENTARY AGRICULTURE

County	Percent of schools in which taught	How taught	In what Grades	Length of lessons daily	Are books used by pupils.	Are books used by teachers
Allamakee	.....	General lessons	.....	.....	No	.....
Appanoose	.....	General lessons	.....	.....	.....	.....
Audubon	.....	.....	.....	.....	.....	.....
Boone	40	General lessons	all	.....	No	No
Blackhawk	.....	.....	.....	.....	.....	.....
Bremer	.....	.....	.....	.....	.....	.....
Buena Vista	10	General lessons	.....	20	No	Yes
Butler	.....	.....	.....	.....	.....	.....
Buchanan	.....	.....	.....	.....	.....	.....
Cahoon	50	General lessons	.....	.....	No	No
Cherokee	.....	General lessons	.....	.....	No	Yes
Clay	.....	.....	.....	.....	.....	.....
Clinton	85	General lessons	.....	.....	a numb'r	Yes
Crawford	.....	.....	.....	.....	.....	.....
Dallas	20	General lessons	.....	.....	No	Yes
Davis	.....	.....	.....	.....	.....	.....
Emmet	Small	General lessons	.....	.....	.....	.....
Fayette	20	General lessons	.....	.....	No	Yes
Floyd	.....	.....	.....	.....	.....	.....
Fremont	.....	.....	.....	.....	.....	.....
Franklin	25	General lessons	.....	.....	No	some
Greene	.....	.....	.....	.....	.....	.....
Hancock	.....	General lessons	.....	.....	No	No
Harrison	.....	.....	.....	.....	.....	.....
Hardin	20	General lessons	.....	.....	.....	No
Henry	.....	.....	.....	.....	.....	.....
Humbolt	Small	General lessons	.....	.....	*	.....
Ida	.....	.....	.....	.....	.....	.....
Iowa	10	General lessons	.....	.....	No	Yes
Jackson	.....	.....	.....	.....	.....	.....
Jefferson	.....	General lessons	.....	.....	.....	.....
Jones	10	General lessons	.....	15	.....	Yes
Keokuk	100	General lessons	3, 4, 5 & 6	15	No	Yes
Lee	50	General lessons	.....	.....	No	Yes in part
Linn	50	General lessons	.....	.....	No	No
Lucas	Some	General lessons	.....	15	.....	Yes
Madison	5	General lessons	10th	.....	.....	Yes
Mitchell	33 1-3	General lessons	.....	.....	No	Yes
Monona	Many	.....	.....	.....	Text adapt	.....
Muscatine	.....	.....	.....	.....	.....	.....
Osceola	.....	.....	.....	.....	.....	.....
Page	.....	.....	.....	.....	No	No
Pocahontas	.....	.....	.....	.....	.....	.....
Polk	80	General lessons	.....	.....	No	Yes
Pottawattamie	No data	General lessons	All	20	No	Yes
Poweshiek	No data	General, if any	.....	.....	No	No
Ringgold	.....	.....	.....	.....	.....	.....
Sioux	.....	.....	.....	.....	.....	.....
Tama	Some	General lessons	.....	.....	.....	Yes
Taylor	.....	.....	.....	.....	.....	Yes
Van Buren	Small	General lessons	.....	.....	No	5 or 6

Books have been placed in school library.

COUNTIES IN WHICH SOME ATTENTION IS GIVEN TO THE TEACHING OF ELEMENTARY AGRICULTURE.—CONTINUED.

County	Per cent of schools in which taught	How taught	In what Grade:	Length of lessons daily	Are books used by pupils.	Are books used by teachers
Washington....	75	General lessons	.....	.....	No	Yes
Webster. ....	.....	.....	.....	.....	.....	.....
Winneshiek ....	.....	.....	.....	.....	.....	.....
Winnebago ....	.....	.....	.....	.....	.....	.....
Worth.....	25	Both methods	7 and 8	.....	A few	In most
Wright.....	100	In classes	7 and 8	alt.with phys.	Yes	Yes

COMMENTS OF COUNTY SUPERINTENDENTS.

I question the practicability of the effort in schools having 18 to 20 year old girls for teachers.

W. M. SPEERS,
Appanoose County.

I believe it to be desirable and practicable that rural schools should teach the elements of agriculture * * *. I believe the matter may best be presented in general lessons with abundant illustrations in the way of experiment, collection of seeds, plants and leaves, seed testing etc. Supplementary reading in this line would be very helpful. * * * Such lessons should develop a love for the farm and its interests, making rural life more beautiful and more desirable to the children of the rural schools.

CHAS. ELLIOTT,
Black Hawk County.

I believe that, could the subject be presented by teachers who understand something of agriculture, theoretically and practically it could be made of much practical value, but in the hands of teachers who know little or nothing about it as is the case with a large majority of those now in the profession, its attempted presentation is a farce.

JOHN T. REMICK,
Bremer County.

I am of the opinion that agriculture should be added to the course. My idea is that it should be taught in connection with nature study and geography. Several good text books are published covering the subject and I have no doubt it would have great influence on the future prosperity of the state. The wide interest taken in the "Corn Specials" last winter shows that scientific farming is coming to be better appreciated and the farming community would no doubt welcome a practical course in agriculture in our public schools.

J. E. DURKEE,
Buena Vista County.

The subject of agriculture is practical and profitable to a certain degree, but may be overdone. Insufficient knowledge of the subject on the part of the teachers is one hindrance.

W. R. SANDY,
Calhoun County.

Elementary agriculture has for the past two years received very much attention in the rural schools of Clinton county * * *. A more systematic line of work is being inaugurated this year. I believe that much can be done for our schools if elementary agriculture were included in the state course of study or if a manual dealing with the subject supplementary to the hand-book were issued by the State Department. Our farmers are awake to the advantages to be gained through the proper presentation of the work, and little, if any, objection would come if the subject be placed as one of the regular ones in the school curriculum.

GEO. E. FARRELL,
Clinton County.

The matter of nature study and agriculture has gotten a start in the schools of this county. Books such as Life on the Farm, School and Farm, etc., have been placed in many of the school libraries and considerable interest has been aroused. Many of the parents are reading these books and a healthy sentiment is being awakened. R. F. WOOD,
Dallas County.

I am much pleased with the thought that if we can do something to interest the country boy and girl in things that they have to deal with we shall be doing them and the world at large a great service. * * * By teaching the young people the science of farming and the saving of the soil, the rotation of crops, and other such helpful things, we can help to give dignity to farm life and make the boys and girls long to stay on the "old farm" instead of rushing to the already crowded city to eke out a mere existence. MATTIE LEE A. LAIR,
Fremont County.

Without doubt the subject of agriculture in rural schools can be made very interesting and profitable. I believe it to be both practical and desirable in that it brings the child in closer touch with nature and has a tendency to improve and develop agricultural conditions by means of a closer study of existing conditions. S. E. CAMPBELL,
Franklin County.

We are not prepared to teach Agriculture in the Public Schools. We could not properly prepare the teachers by giving a course in that subject in the County Institute, even if we could secure the instructors, which we could not do now. We are not prepared to teach it. A. J. OBLINGER,
Greene County.

Do not favor adding another branch, the elements of agriculture, to the common school course of study. I do believe in practical nature study work that will interest the boys and girls in farm topics, in so far as the teachers may be competent to handle the subject. A. M. DEYOE,
Hancock County.

I believe that Agriculture should be taught in our schools, because almost all other lines of industry depend for success, upon the character of crops raised, market price etc.; and what ever tends to develop intelligent, contented workers on the farms is a help to the country at large. ELLA B. CHASSELL,
Hardin County.

It is practical because of its necessity. It is desirable in order to interest the boys and girls in the farm life and keep them on the farm, and because the great majority of the people want it. The only objection at the present time to the teaching of Agriculture in our schools is the lack of knowledge on the part of the teacher to properly present it. H. T. PORTS,
Iowa County.

* * I hope the state will make provision for the instruction of teachers in agriculture and examinations therein. Then I believe its general utility would soon be widely acknowledged.

C. C. DUDLEY

Jackson County.

* * A great deal of work is done in our schools classed as "nature work" that is almost the same as that known as Elementary Agriculture, as outlined in some courses. A few schools have had exhibits of products raised and cared for by the children. This subject in the course of study for rural schools is desirable and practicable if teachers are given enough time before having to teach it.

ANNA WHITE,

Jefferson County.

During the last two institutes in this county, the subject of agriculture has been presented to the teachers and an active interest has been awakened. A few carried the inspiration thus gained into the classroom. * * * As to desirability, there is little question, but on the ground of practicability an issue might be raised. The greatest obstacle is the ignorance of our present teaching force of the most elementary principles.

CLIFFORD B. PAUL,

Jones County.

I am in favor of teaching the elements of agriculture in the rural schools because of the great interest it adds to all other school work, because it helps to connect the school and home, because it offers a way to get hold of some dull or mean boy or girl who could not be reached in any other way * * * . It furnishes a chance for experiment in a way that no other branch of study can offer. Children like to experiment and if this tendency can be developed great and good results will follow.

CAP E. MILLER,

Keokuk County.

The teaching of agriculture is not only desirable but necessary in our locality.

LAURA FITCH,

Lucas County.

There is no good reason why Elementary Agriculture should not be taught in the rural schools. I would suggest that to introduce the study into the schools, it would be well to take some interesting elementary text-book and use it as a supplementary reader in the 7th and 8th grades.

T. H. STONE,

Madison County.

In about sixty of our rural schools a little book of experiments called "Rural School Agriculture" was placed in the hands of teachers. Many of the 239 experiments are readily within the reach of all rural school teachers. To about 35 schools seed corn from Iowa State college was given last spring. 500 kernels were given to a school for testing. Boys were asked to plant in soil, made rich, to give good care to the corn and then note results with each kernel. In a paper, later they are to give an account of their experiment.

JAY A. LAPHAM,

Mitchell County.

* * * * We adopted Eggert's Professional Farming as a text on the subject a few years ago * * * *. Have left the matter of teaching the subject optional with the teachers * * * *. There has been no uniformity in the instruction * * * *. I sent out several pounds of seed corn to all boys of the county from 15 to 19 years of age that cared to receive it * * * *. Many of the boys raised some excellent corn and made good reports. As a result many boys are interested not only in the growing of corn but in other subjects of agriculture and the farm in general. We sent out corn for several years and the results have been good * * * *. I believe that it is practicable to teach agriculture in the schools but do not think that it can be taken up very well as a separate study each day. The course of study as now outlined, it seems to me, is too full for that.

F. E. LARK,
Monona County.

I believe it is very desirable but entirely impracticable as matters now stand. If the teaching can be done by an expert or some one or more persons who will make no serious blunders, and who can create a lively interest in good practical questions relating to this great subject, it will be of immense value to our rural districts * * * *. Our agricultural college at Ames should be the adviser and leader in this movement. It should be the authority on this subject.

F. M. WITTER,
Muscatine County.

Some work has been done in connection with nature study. I believe it would be a valuable subject to include in the rural school course. At present we lack teachers competent to do it justice.

J. P. MCKINLEY,
Osceola County.

I do not believe in making it a distinct branch in the school, but the teacher should know how to correlate the work with the other branches, such as language lessons and geography. The nature study should be along the line of agriculture.

GEO. H. COLBERT,
Page County.

I do not think the teaching of Agriculture in the rural schools as we have them is practical. We cannot get teachers fitted to teach the subject. When we get rural graded or high schools in the township, the subject should be taught and model gardens or fields sustained.

U. S. VANCE,
Pocahontas County.

Beyond placing elementary works on agriculture in rural school libraries, and arousing interest in the subject in a general way, I see no possibility of doing anything in a permanent way in the matter until our teachers are prepared to teach the subject.

The desirability of such instruction cannot be questioned, if done in such a way as not to interfere with thorough work in the fundamental branches.

P. A. MCMILLEN,
Poweshiek County.

Agriculture should be made the bases of work in nature study. The subject needs attention. Should be done in connection with other work. Do not make it a special subject.

O. J. MCMANUS,
Pottawattamie County.

I am strongly opposed to the introduction of any more branches of study as such, so long as the program of the rural school is overcrowded as now and the teachers incompetent to handle the subject matter. * * * It seems to me that more of the reading matter used in the school should be based on agricultural subjects, and that somewhere in the course a good text on agriculture should be carefully read and discussed by one of the reading classes.

W. E. CHASE,
Sioux County.

During the spring term a number of our teachers took up the subject in their schools in general classes. It is proving very practicable and profitable. I believe the time is here when we should begin to teach our boys and girls of the farm some things pertaining to the farm and farm life.

D. E. BROWN,
Tama County.

I am opposed to teaching agriculture as a special branch and consider it impracticable. The course is already overloaded and I am in favor of covering less ground and doing it better. * * * I would have the teachers better prepared on what they are now teaching rather than prepare on additional subjects.

A. L. HEMINGER,
Van Buren County.

The teaching of Agriculture in the rural schools brings the home and the school nearer together. It creates a feeling on the part of the pupils that a higher education is needed by persons who control the farms of our country.

CORA E. PORTER,
Washington County.

I am not particularly in favor of adding it to the already overcrowded rural school program. I am a firm believer in township high schools, and believe that in these schools it can, and should be taught. A class of young people of the age of entrance to a township high school can profitably study the work in its various phases. In the lower grades it would be only another form of the much-abused "Nature Study."

A. L. BROWN,
Webster County.

I am of opinion that the study of agriculture as it would have to be presented with unprepared girls as teachers is not a thing to be desired. Encourage it but do not impose it as a legal obligation.

E. J. HOOK,
Winneshiek County.

I do not believe that the introduction of elementary agriculture into the public schools, to be made a special branch, would be practical or

advantageous. Neither do I believe the function of the public school is to make farmers, carpenters or butchers.

If the work of our public schools fits the pupil to educate himself by a competent study of books and his own individual power of observation it has perhaps fulfilled its mission.

There must be something left for the home education and it appears to me with the small amount of illiteracy existing in our state that the dissemination of knowledge so beneficial to our farm population may be carried on through the press at far less expense and be of far more value to farmers and farmers' children than by trying to reach them through the channels of the public schools.

Let the state establish a bureau for the distribution of leaflets from our college of agriculture. By this means every farm home may be supplied with information from a reliable and scientific source where it may be used in a practical manner.

L. C. BROWN,
Winnebago County.

In a distinctively agricultural state where more than 97 per cent of the land area is devoted to farming and where over 56 per cent of the total population lives on the farms, it is nothing but meet and just that the elements of agriculture should be taught in the rural schools.

Every rural child has a right to be taught the value, name, and nature of the different soils, plants, insects, and domestic animals.

The pupils of the rural schools should be given an opportunity to learn more about the occupation which perhaps more than 90 per cent of them will follow.

O. E. GUNDERSON,
Worth County.

For three years we have had agriculture taught in the institute in connection with nature study. We are not over-doing it, but we are getting many of the pupils interested in the book of life. * * * Teachers and pupils are doing field work and I think that many are learning

ANGUS MACDONALD,
Wright County.

BOY'S AGRICULTURE CLUBS AND GIRL'S HOME CULTURE CLUBS.

Closely allied with the movement for teaching agriculture is the organization of boys' agriculture clubs and girls' home culture clubs. This movement has gained considerable proportion in a number of states, and is particularly praiseworthy since it requires personal effort out of school hours, and encourages observation and reflection.

In Iowa the first club was organized by County Superintendent Miller of Keokuk County. At present 511 boys in this coun-

ty are members of the agricultural club, and 407 girls are members of the home culture club. In Iowa County the boys' club numbers 141, and the girls' club 165. So far as reported, but the two counties mentioned have these clubs in Iowa.

The following outline prepared by County Superintendent Ports of Iowa County will indicate the scope of the work. This outline is for the months of May, June, July and August.

FOR THE BOYS' AGRICULTURAL CLUB.

1. Weigh all the milk of two cows for a week. Why does one give more milk than the other? Does she eat more?

2. Make a garden six feet square of good ground. Sow radishes, lettuce and spinach. Plant one potato, two cabbages, one cucumber, two bush beans, two tomatoes and a few peas. Train the tomato to a stake and keep trimmed. Lay vines over the edge of the garden as much as possible. Keep clean of weeds. Keep record of time of sprouting, blossoming and fruiting.

3. Plant one currant bush, one cherry tree, one raspberry bush, one grape vine, and one shade tree. Keep clean of weeds. Plant one shade tree at the side of the school yard and take care of it. Make a record in the register of the date, kind of tree, height and name of pupils helping.

4. Cover a half dozen ears of corn with cloth or heavy paper sacks. Do this as soon as the silk starts. Have the sacks long enough to give the ear plenty of room and tie loosely about the stalk so that no dust can reach the ear. Plant a hill of corn alone in the garden at least ten rods from any other corn. Note effect on ear.

5. Count all the good heads of oats on a spot of ground a foot square. Count all the blasted heads on the same spot. Do this on five such spots and calculate the percentage of smut in the field, and the loss per acre in bushels.

6. Find a place where white and yellow corn are growing side by side. And then find where there are the most mixed kernels—at the butt of the ear, along the middle, or at the tip.

7. Find the greatest number of oat stalks growing from a single root.

8. Make notes on growth from the buds marked on the grape vine or apple tree. Care for the flower bed and keep a record of how many flowers you grow.

9. Collect flowers, leaves or small plants that interest you. Put them between several thickness of newspapers. Put one above another with a board on top, and put on brick or stone to press them. Open

and change papers every day or two until they dry, then lay away between sheets of plain paper, such as is used at the store for wrapping parcels. If you want to do it the best way have the sheets $11\frac{1}{2} \times 16\frac{1}{2}$ inches. Bend the plants to this size before drying, then when dry fasten to the plain sheet with strips of court plasters or sew on with thread. Also write in the corner of the sheet the following:

Date
 Name of collector
 Name of plant
 Where found

10. Visit the flock of sheep at shearing time and take the weights of at least twelve fleeces. Which shears the longer wool, a lamb (yearling) or an old sheep? Where will the ticks go when the sheep are shorn? What is to be done about it?

11. Plant a little corn out of doors, if not more than one hill, and measure and keep a record of growth each week. Do not stretch up the leaves, but measure as it stands naturally.

12. Collect and describe the blossom of wheat, oats, clover, timothy, and corn. In how many ways do they differ? Which are visited by bees, and why? Why are the others not visited by bees? Is it of any consequence to the plant to be visited by bees?

13. Find out whether grass blades grow from the point or from the base.

14. Study the horse and dog and learn which is the more intelligent; which shows more anger, fear, affection? Keep written notes and prepare a written report.

15. Watch the garden and the trees. Flowers are staminate and pistillate. Staminate flowers shed a fine dust, pollen, when ripe. The tassel of corn is the staminate flower and the silk is the pistillate. In how many ways is the pollen brought to the pistils of the flowers in different plants?

16. What is the largest number of good grains in a head of wheat? Of oats?

17. What should each crop yield per acre as grown in your neighborhood?

18. Work extra time and raise an acre of some crop if possible. Do all the work yourself and pay the rent for the land. Sell the crop and with the money buy pigs or sheep. Feed and sell these and in this way start a fund to be used for books or in going to school.

19. Dig up a clover plant in the growing season. These little swollen points that you see on the roots, called nodules or tubercles, are the home of bacteria, which, in their growth, take the nitrogen from the air. They live but a short time, and at their death this nitrogen is

available for common plants, which need large quantities of nitrogen, but being unable to get their own supply from the atmosphere are entirely dependent upon the soil supply, which is never large and is soon exhausted by cropping and by rains. Large crops can not be raised, therefore, unless this soil nitrogen be kept up. To do this by buying nitrogen in the form of fertilizer will cost fifteen cents a pound, and it will require over four pounds to grow a bushel of wheat. It can be secured for nothing, by growing occasionally, on every field those crops that are able to get nitrogen from the air through the tubercles on their roots. Only certain plants can do this. All others consume nitrogen without producing it.

Look carefully at the roots of all farm crops and determine which have nodules and which have not—then you will have classified crops into nitrogen producers and nitrogen exhausters.

Read chapters 3, 4, 5 and 6, Agriculture for Beginners.

FOR THE GIRLS' HOME CULTURE CLUB.

Nos. 1, 2, 3, 8, 9, 12, 13, 14 and 15 the same as for boys.

STUDY.

1. Furnishings—From standpoint of hygiene and expense. Treatment of floor, carpet, rugs. Amount and kind of furniture desirable, necessary. Original devices. Bedding, kind, quality. Knowledge of values in cotton cloth, mattresses, springs, blankets, etc.

2. Decorations—Harmony and color. Over decoration. Simplicity for hygienic and artistic reasons. Articles for needle work confined to useful articles. Value of time an element. Suitable pictures, subjects, kinds, expense. Knowledge of originals of pictures and artists who produced them.

Work cover for dressers and washstand. Other necessary articles not before mentioned in outlines, such as quilts, laundry bags, pin cushions, sponge case, etc.

We would like to have exhibited at our School Exposition this fall, sheets, pillow cases, dresser and sash stand covers, and all other articles made by the girls.

Read chapters 3, 4, 5 and 6 of "Letters to a Daughter."

THE KINDERGARTEN.

The following table shows the number and location of the free public kindergartens in Iowa. The time must come when

the kindergarten will be recognized as an essential part of the school training of children. The movement is slowly, but surely, gaining ground.

It is a pleasure to announce that we now have a well equipped kindergarten in connection with the State Normal School where teachers are being trained for this department of school work.

PUBLIC KINDERGARTENS.

Corporation.	No. Schools.	No. Teachers
Burlington	6	8
Cedar Rapids	4	8
Charles City	1	2
Council Bluffs	11	17
Oreston	4	8
Denison	2	2
Des Moines-West.	21	24
Dubuque	7	14
Glenwood	2	2
Harlan	2	2
Hawarden	1	1
Ida Grove	1	1
Jefferson	1	2
Manchester	1	2
Marshalltown	7	.....
Mt. Pleasant	2	6
Onawa	1	1
Oskaloosa	5	5
Pella	2	2
Sac City	1	2
Sheldon	1	2
Villisca	1	1
Vinton	2	2
Washington	1	2
Waterloo-West	1	2
Webster City	1	2

KINDERGARTEN AT THE STATE NORMAL SCHOOL.

HARRIETT ELIZABETH GUNN, DIRECTOR.

With the beginning of the school year of 1904-1905 the board of Trustees organized a training school for kindergarteners. The kindergarten opened in the fall with a large class of students and the Training school kindergarten full of children. Two beautiful rooms were set apart for this work and each fully equipped with latest material.

The growth of the department has been so great that with the opening of the year 1905-1906 it was necessary to enlarge the department by equipping another room and providing an additional teacher.

The aim of this department is to qualify efficient teachers for positions in private and public kindergartens where superior skill and scholarship are required.

The kindergarten course comprises the three main requisites of a woman's education.

It gives broad liberal culture.

A technical training for a practical vocation.

Preparation for woman's highest destiny—the ideal training of childhood.

Two courses are offered:

I. Three-year regular course. This is for students who are not high school graduates.

II. Two-year high school graduate course.

I. In the regular course the following studies are taken:

First Year.

A	B	C
1. Vocal Music. English Grammar.	1. Arithmetic. Vocal Music.	1. Drawing. Geography.
2. Economics.	2. Penmanship and Bookkeeping.	2. Algebra.
3. Principles of Edu- cation.	3. Methods.	3. Methods.
4. Algebra.	4. Algebra.	4. English Composi- tion.

Second Year.

A	B	C
1. U. S. History. Drawing.	1. Physiology. Drawing.	1. Civil Gov't. Reading.
2. Rhetoric.	2. Psychology.	2. Psychology
3. Kindergarten.	3. Kindergarten.	3. Kindergarten.
4. Kindergarten.	4. Kindergarten.	4. Kindergarten.

Physical Training and Literary Society Work.

Third Year.

A	B	C
1. School Manage- ment.	1. Physics.	1. Physics.
2. Kindergarten.	2. Kindergarten.	2. Botany.
3. Kindergarten.	3. Kindergarten.	3. Kindergarten.
4. Manual Training.	4. Manual Training. Literary Society Work.	4. Kindergarten.

II.—HIGH SCHOOL GRADUATE COURSES.

First Year.

A	B	C
1. English Grammar. Vocal Music.	1. Arithmetic. Vocal Music.	1. U. S. History Drawing.
2. Economics.	2. Psychology.	2. Psychology.
3. Kindergarten.	3. Kindergarten.	3. Kindergarten.
4. Kindergarten.	4. Kindergarten.	4. Kindergarten.

Physical Training and Literary Society Work.

Second Year.

A	B	C
1. Drawing. Physiology.	1. Algebra.	1. Physics.
2. School Management.	2. Physics.	2. Physiography or Am. Gov't.
3. Kindergarten.	3. Kindergarten.	3. Kindergarten.
4. Kindergarten.	4. Kindergarten.	4. Kindergarten.

Physical Training and Literary Society Work.

The kindergarten studies are the same for the two courses. Following is the list.

Junior.

Mutter and Kose Lieder.
Gift and Occupation.
Stories and Juvenile Literature.
Music, Games and Songs.
Program work.
Teaching in Training School Kindergarten.

Senior.

Mutter and Kose Lieder.
Gift and Occupation.
Kindergarten Principles.
Mothers' Club Work.
Principles of Program work.
Practice in Training School Kindergarten.

The Training School Kindergarten has been crowded to its utmost capacity. At times there have been as many as twenty children waiting to come in. Each child is making a doll house of wood, containing five rooms. They expect to furnish these completely with furniture of their own manufacture.. Great interest has been taken in this department, the visitor record showing three thousand guests during the past year.

MANUAL TRAINING AND DOMESTIC SCIENCE.

While Manual Training is firmly established in but a few Iowa schools, the outlook for the future is encouraging. The need of such training is widely recognized, but two principal difficulties have stood in the way of its rapid extension:

First, there has been a dearth of thoroughly equipped manual training and domestic science teachers, and

Second, the popular impression has been that the expense incident to this kind of instruction is very great.

The first named difficulty will soon be in large part overcome, since a well equipped manual training department has within the past two years, been opened at the Iowa state normal school, where a large number of young men and young women are preparing themselves for this special work, while a domestic science department has been established both at the state school at Ames and at the normal school at Cedar Falls.

That the second objection is far less formidable than many suppose is shown from the following tables:

MANUAL TRAINING IN IOWA SCHOOLS

FOR PROCESSES TAUGHT SEE NOTE BELOW

NAME OF CORPORATION	When Introduced	Number Special Rooms for Woodworking	Benches		Cost of Tools and Mach'n'y		Cost of Lockers, Cabinets and Fixtures	In What Grades	Number Taking	Material		No. schools using rooms	What Grades do Woodworking	
			Number of	Designed for How Many Pupils...	Cost of Each...	Set of Individuals...				General	Do Pupils pay for it...			Cost Per Pupil Per Year.....
Burlington.....	*	20	1	\$12 00	15 25	\$ 40 00	* 8-10 all	110	no +		12	none		
Carroll.....	**	30	1	10 00		200 00	+ 6-12	510	no	\$ 70	5	none		
Cedar Rapids..	2	21	1	7 00		855 00	7-12	155	no	3 00	2	none		
Clinton.....	1	10	2				9-12	369	no		14	yes		
Davenport.....	1	5	4	10 00		10 00	7-8	225	yes	2 50	24-6	yes		
Decorah.....	1	16	1	25 00		4 00	9-12	75	no +			non		
Des Moines														
North High ..	1	22	1	6 00	3 25	350 00	9-12	24	no +	1 50?	3	no		
West High ..	1	17	1	25 00	3 25	1000 00	9-12	205	no +	1 50?	8	no		
West Grades	5	20	1	6 00	none	650 00	7-8	600	no	35?	8	no		
Dubuque.....	1	20	1	26 13		205 00	8-12	137	no	50	1			
Ida Grove.....	1	15	1				9-12	60	no +			no		
Iowa City.....	1	10	2	30 00	9 50	1050 00	5-9	300	no +	50?	6	no		
Le Mars.....	1	12	2	13 50	5 10	140 00	7-8	90	no	40		no		
Marshalltown..							all	2250	yes	10?	4	6-7		
Mason City....	2	14	1	8 00		300 00	7-12	170	no +	1 00				
Missouri Valle	1	15	1	15 05		75 00	9-12	50	no	2 00	7	8		
Monteroma....	1	12	1	17 00		40 00	8-12	78	no +	50				
Oelwein.....	1	2	2	18 00		55 00	9-12	75	no +	4 00?	5			
Onawa.....	1	10	2	10 25		93 00	9-12	24				No		

* Special building in preparation. + For work outside of course or to keep, yes

‡ Book Closets are used. § Bench and set

| Below seventh grade 40 cents ¶ Made by students x For 13 pupils, benches for 2, 3 and 4.

** The manual training in this school differs essentially from that done in most schools maintaining a manual training department. The work is offered to all the pupils by the regular teachers under the skillful direction of the city superintendent. The work is all voluntary and consists of knitting, darning, all forms of sewing, quilting, caning chairs, making brushes, telescopes, flower pots, vases, etc. Pupils and teachers are deeply interested and much of the work is done after school hours. The cost is practically nothing, since remnants from dry goods stores, cast off garments and other materials that have little commercial value are utilized.

NOTE—Processes taught. Advanced; lathe work, Burlington, Clinton, Davenport, Des Moines West High, Ida Grove, Iowa City, Mason City and Missouri Valley

Pattern making, Davenport, Des Moines West High. Mechanical Drawing, Cedar Rapids Mason City. Carving, Cabinet Work: Des Moines North High and West High, Mason City and Missouri Valley. Elementary Processes. The elementary processes taught are practically the same in all schools offering work in the lower grades and includes paper cutting, weaving, basketry, cardboard work and braiding, while a few offer iron work, wood work and leather tooling.

DOMESTIC SCIENCE IN IOWA PUBLIC SCHOOLS

• Sewing room 9, kitchen 4; 4 pupils at a table.

† Kitchen equipment cost \$2.75. Sewing equipment furnished by pupils.

‡ In sewing, yes.

§ Seating eight pupils.

** "We have a case divided into 250 pigeon-holes, each numbered and containing a box numbered to correspond. This provides a place large enough to hold an apron and model book,"—
From report of special teacher.

*** This school spent \$240 for sewing machines last year and \$20 additional for supplies. Pupil do not furnish material except for articles kept by them.

†† Not entirely.

REPORT OF THE
THE PLACE OF DOMESTIC SCIENCE IN PUBLIC
SCHOOLS.

BY GEORGETTA WITTER, AMES:

There is a growing appreciation of Domestic Science in our public schools. This is evidenced by its introduction in so many new places, but there is also a skeptical attitude in the minds of many as to its value; a tendency to class it among "fads," to regard it as one more of the new subjects that are over-crowding the curriculum. Professor Kinne says, "Even among superintendents, general teachers, and parents, who are its friends, there is a lack of formulated opinion as to its value, and a tendency to throw responsibility on the special teacher, and consequently there is a lack of vital connection with other school work."

Statistics show that Domestic Science, in some form, is taught in the elementary schools in more than sixty cities in the United States, in High and Manual Training Schools, besides being taught in a number of our Agricultural colleges, Universities and Normal schools—hence the school man who takes time to consider the situation finds himself confronted by an extraordinary economic incongruity—the expenditure of public funds for maintaining a subject, about which he knows little or nothing.

What is Domestic Science? Here are various household arts, such as preparation of foods, making of garments and keeping things clean. In carrying on certain processes, particularly cooking and cleaning, we are working with forces outside ourselves, and when we ask what these forces are and how they behave, we discover that here in these matters of daily life we are applying the principles of chemistry, physics and biology. In other processes, such as sewing, weaving and basketry, we are dealing with form and color and so applying the fine arts in the home. Broadly speaking, our subject is one form of applied science and art.

But Domestic Science is more than the application of science and art merely to the end that certain results may be correctly reached, for we must consider the place of these arts in the social order and this brings us immediately to the thought of the home and its conduct, the home as the place where the individual is given such physical and ethical surroundings that he is made an effective human being, the conduct of the home, on the material side, as the seeking to produce the best results with the least expenditure of energy, material, time and money.

Does society as a whole, show any needs that such a study would meet and answer? What is the reason that such a large proportion of our population is in a poor physical condition? Here is great economic waste, for lack of vigor means lack of effective accomplishment, and also makes necessary large expenditure of remedial measures.

With better shelter, water, ventilation, rational cleanliness and proper clothing, a check would be placed on this enormous waste, more real work would be done, and there would be fewer patent foods, medicines, and hospitals.

Another common waste is through poor buying and extravagant use of materials. To what are these things due? Doubtless to many influences, but potent among them are two: (1) Ignorance of women on these points in the management of the household; (2) Ignorance of men and women together in the management of that larger household, the city. The only way to remedy this, to reach all the people, is through our schools. This is the larger aim.

As regards the educational advantages to the individual consequent upon a right introduction of this subject into the time table, experience offers evidence that children gain increased power of muscular control and expression through the handwork. They become self-reliant and useful to others by the capacity thus evolved, while the variety of occupation is not only agreeable at the time, but conduces to their social value.

The subject also offers excellent opportunities for the development of the relating power, that is, for tracing cause and effect, and for the realization that successful practice depends upon a firm grasp of underlying principles. Luck becomes a myth, judgment as to time is developed, and good taste is formed in regard to color and form, in furnishings and clothing. It becomes apparent to the most self-willed child that in dealing with materials and forces it is not as we please, but as nature pleases, and to control her we must obey her. While, at first sight, it would seem a small matter for pupils to make a loaf of good bread, yet see what it involves. They are free individuals and may do as they please. They may please to pour boiling water on the yeast, forget the salt, refuse to make their muscles work effectively, let the dough stand a length of time convenient to themselves, and fail to manage the oven dampers. What then? Nature has gone quietly on her way and returns to them their just due; their own careless selves expressed in a soggy, dark, sour, ill-haped loaf of bread. We have here in concrete terms the whole matter of the limitation of the individual by his environment. Through a series of such experiences there comes an understanding of what law means, and self-control, obedience and freedom.

Taking the thought and handwork together, the subject gives the school a field where the knowledge and powers gained in other subjects may be applied to practical ends and conversely, it stimulates an interest in other subjects. This idea of application is an essential part of the plan that aims to make a close connection between school and home life.

Here at Iowa State College Domestic Science forms a part of the General and Domestic Science Course as well as the Domestic Science Course. It may, to some extent be elected in the Science Course. Our aim

in the General Course is to prepare our college girls to be good home makers. Our Domestic Science Course is designed to prepare teachers of Domestic Science.

Last year our enrollment in all courses in Domestic Science was over five hundred. The girls spend from four to fourteen hours per week. At present we have forty-five eighth grade girls from the Ames public schools coming to us for instruction in Domestic Science. They spend two hours per week in this work. The cost of material is three cents a child per lesson.

Our public school kitchen was equipped at a cost of \$200.00. This includes individual equipment for twelve girls.

The course as outlined includes a study of fuels, stoves and ranges, making and care of a fire, care of stove, fuel, foods and proper cooking of same. Relation of food to body, care of sink, washing of dishes and care of dish towels. Fats and oils, proper cooking, proteids and cooking. Serving of simple meals.

HANDWORK IN PUBLIC SCHOOLS.

BY PROFESSOR CHARLES H. BAILEY, IOWA STATE NORMAL.

It is the purpose of this article to point out a few of the most important things which it is believed that manual training in the public schools should stand for and accomplish, and to offer some suggestions as to the actual work in the different grades. Nothing beyond a bare outline of the argument can be presented in the space available here; no attempt will be made to elaborate the points set forth.

It is probably a generally accepted theory that education should be a fitting of the individual for life, and an actual training in living. Modern education should be a preparation for modern life and a training in modern living; in this country it should be a preparation for life in a democracy—for citizenship in a country and at a time in which citizenship means more than at any other period of the world's history or in any other country on the globe. It is the function of the school as a factor in education to do its part toward making this preparation complete and effective. If this is true, the work of the school should be based upon a study of the demands that civilization and society makes upon the individual—by a study of the environment.

One of the most significant factors in present-day life is the element of industrialism. This is an age of industry—a time in which a large majority of those persons who are engaged in gainful occupations are concerned in the doing of things with their hands. The figures of the United States Census Reports show this to be true. More than ever before in the history of the world, thought and energy are being directed along those channels and toward those things that make for economical

production and application of power, for rapid transportation, the development and improvement of machines and mechanical appliances, the securing of easy and immediate communication, the working out of better methods of heating and lighting of buildings, greater ease of production and increased output of all sorts of manufactured articles—in fact, the whole industrial problem is occupying the attention of the world as never before.

A large majority of the pupils of the public schools will at some time have a place and a part in this industrial movement, and the school should in some measure prepare the pupils for this work by bringing into the school the elements of these industries—by giving the pupils training in the actual making and doing of things that have a relation to this whole field of construction and the constructive arts. From this point of view, manual training in the public schools should serve to represent and interpret to the child the art and industry of modern civilization. Perhaps only a few things can be done, but these may be typical and illustrative of the larger things of real life. The handwork in the schools should be planned with this in mind and much that is done should bear a vital relation to, and serve to interpret faithfully this phase of the child's environment.

There are other tests to which handwork in the schools should measure up. The work done should be of value to the child, should be appreciated by the child so that he will have a motive for its accomplishment. Unless this motive is present in the doing of the thing—a motive on the part of the child, not that of the teacher, a large part of the value of the work will be missed. This means that the things made should appeal to the child himself as reasonable and desirable things to make. They must be a part of the life of the child, must be the art and industry of the child's life, while at the same time they represent the art and industry in the world around him.

The work done should be an expression of the child's own thought. One of the chief values of handwork is to be found in the fact that, when properly performed, it is a means of thought expression, of expression in a natural, concrete way. This fact must be remembered, particularly when working with the young child. We are told by psychologists that no mental act is complete without corresponding reception and expression. The carrying out of a thought into action is a necessary complement of every complete mental act. The element of action is as important as that of reception. Experience with the young child teaches that doing things, making things, representing things in material, concrete forms is a natural means of expression, the most natural. Handwork in the schools should be such an expression of the child's thought.

A study of the development of children teaches that working with the hands is not only a natural means of expression, but that most of the child's knowledge of the things around him is gained through actual contact with these things, through the motor centers, through manipulating

things, handling things, doing things. He is an active, not a reasoning being. Consequently, handwork for the young child should be the rational activity that has for its purpose the initiation of the child into its surroundings—an introduction to all the facts of life with which he comes in contact and a means of gaining knowledge concerning them. It should compose a large part of the school work of the young child.

A large part of the work done should have a value in itself—a subject matter value. Some things may be done merely as a means of expression and representation, but processes may be chosen that are worthwhile to learn as processes, and the work done be of real value, at the same time fulfilling other conditions. The subject matter value of this work must not be lost sight of in the emphasis upon its training and developmental value, nor must the subject matter value be the whole consideration as has been the tendency at times.

Manual training has its chief value when it is correlated in a vital way with the other work of the school and not taught as a thing apart. It may be brought into immediate connection with the work in arithmetic, reading, history, geography, nature study, etc., and made to vitalize these things, bringing to them a new interest and a new meaning. This correlation should be made wherever it can be done in a natural way, but it is a mistake to attempt to correlate in an artificial manner merely for the sake of correlation. Handwork has a value in itself, aside from its connection with other things, and its use that way may be justified, but when a natural correlation with the other work can be made it adds to and strengthens both the handwork and the subjects with which it is connected.

As a child grows older and develops, he is able to better appreciate relationships and to reason from cause to effect, consequently handwork with him begins to have a different meaning. He is better able to realize the value of the process for its own sake—for the skill he acquires and the possibility of applying this skill to practical uses. He is able to see the work in its relation to some future occupation or need, and thus it becomes to him more of a means to an end and not simply an end in itself as it is to the younger child. Thus we are able at this stage to give more attention to the details and technique of the process, and the whole work becomes more specialized. For this reason, the work done in the upper grades and the high school differs in character from that in the lower grades, and also, to some extent, in motive and in the method in which it is conducted.

In the following paragraphs will be found a brief outline of the forms of handwork that may be introduced into the different grades and something of the way in which it may be conducted.

It is generally considered that the manual training work in the grades below the seventh must be done in the grade room by the regular teacher, while that above the seventh grade must usually be done

in the special room under the instruction of the special teacher. There is no very uniform practice in this regard but the limitations of ordinary school conditions seem to confine the work of the special teacher to the upper grades.

Since the work in the lower grades must be done in the regular school room at the ordinary school desk, the processes introduced must be such as do not require elaborate or expensive equipment and must be capable of being done at the school desk. Some of the things that may be done in the different grades under these conditions are given below.

First and Second Grades.—Paper cutting and folding; clay modeling; sewing; simple weaving with rags, raphia or yarns; cord work; illustrative work on the sand table; painting and drawing.

The paper work, drawing, modeling and sand-table work may be connected with the work in reading by using them as a means to illustrate stories read, and to make things spoken of in the stories. Cardboard work and weaving may be used as an aid to the study of arithmetic, weaving may be connected with the stories in history, and the sand table be used to teach something of local geography. There are many opportunities to correlate the handwork in these lower grades with the other work of the school.

Third and Fourth Grades.—Cardboard work; weaving; making mats, handbags, hammocks, baskets, etc. from raphia and other pliable materials by braiding and sewing, knotting, weaving, etc.; making simple baskets of reed and of reed and raphia combined; simple knife work in thin wood; clay modeling; sewing; painting and drawing. Where possible, this work should be correlated with the regular work as suggested for the first and second grades.

Fifth and Sixth Grades.—Card board work, using heavier and stiffer materials and making more substantial articles such as boxes, portfolios, book covers, etc.; knife work in thin wood; basketry, using reeds and splints; bent iron work; leather work. Bench work in the special room may be given with profit if it can be arranged.

Seventh and Eighth Grades.—Wood work in the special room; leather work; sheet-metal work. Sewing and cooking for the girls.

High School.—Bench work; wood turning; pattern making; forging; foundry work; machine shop practice; mechanical drawing. Cooking and sewing for the girls.

The work in the high school requires expensive equipments and few schools are able or willing to expend large sums of money on this specialized work. Much can be done in the grades, however, with little equipment and at small expense, and inasmuch as handwork as an educative process has its greatest value in the lower grades, that phase of the work may well first occupy the attention. The course of study

can be greatly enriched in these grades by the wise introduction of some forms of handwork.

MANUAL TRAINING AND DOMESTIC SCIENCE IN THE IOWA STATE NORMAL SCHOOL.

The Iowa State Normal School at Cedar Falls, recognizing the increasing prominence given to the manual arts in the public schools and appreciating the demand for teachers trained to give instruction along these special lines, has established a Department of Manual Training and Domestic Science in order that its students may have an opportunity to thoroughly prepare themselves to take positions as supervisors and teachers of these special branches. Special diplomas are granted which exact the same high standards of scholarship that obtain in the requirements for the regular diplomas but give recognition to the special training which these courses involve. These special diplomas, Director of Manual Training or Domestic Science and Teacher of Manual Training or Domestic Science, are equivalent in standing to the regular diplomas and require respectively three years' and two years' work beyond a regular high school course.

The courses leading to the special diplomas in manual training involve, besides the constants for the regular courses, about two years of special manual training work which includes a thorough technical training in the various processes that are being introduced into the schools as forms of handwork, and also a study of the history, theory and practice of manual training, together with problems of organization and methods of teaching.

Special equipments and suitable apartments have been provided for giving instruction in mechanical drawing, bench work in wood and in wood turning. Provision will be made later for giving instruction in metal working. Instruction is also given in those forms of handwork such as paper and cardboard work, string work, weaving, clay modeling, raphia and reed work, sewing, leather work, bent iron, book binding, etc., which are adapted for use in the elementary grades.

The mechanical drawing room is equipped with twenty-one adjustable drawing tables with a full set of instruments for each table. These instruments are furnished to the students without charge. The total cost of this equipment was about \$435.00.

The room for bench work is furnished with twenty-one individual benches with rapid acting vises, each bench containing a set of tools such as are most commonly used. In addition to these individual tools, a set of general tools is provided composed of those for which there is only an occasional demand. There are also convenient tool cases and lockers for the students' work. The total cost of the equipment for this part of the work was about \$645.00.

In the wood turning room are four Reed lathes of four foot bed and ten inch swing operated by individual motors. Each lathe has a full complement of turning tools. More machines will be added as they are needed. The cost of this equipment was about \$485.00.

The equipment provided is somewhat more complete and expensive than would be necessary for similar work in the public schools. This is done that the students may have experience with ideal conditions, and in order to secure the greatest efficiency.

For the work in manual training for elementary schools little equipment is needed, and the students pay for all material used.

The diplomas in domestic science have the same standing as those in manual training and involve an equivalent amount of special work.

Convenient rooms and adequate equipments have been provided for giving technical and practical instruction in sewing and cooking. Theoretical courses in the study of food materials, house sanitation, household management, etc. are also given.

It is the purpose of this department to prepare its students to become teachers of domestic science, not merely to give lessons in sewing and cooking. The courses are planned to make this preparation as thorough as possible.

Manual training and sewing are being taught in the upper grades of the training school connected with the normal school, and it is proposed to introduce handwork into all the grades as rapidly as possible. Thus opportunities are afforded the students to observe this work in actual progress and to do practice teaching.

The interest in these special courses as evidenced by the number of students enrolled is very gratifying. About fifteen are taking courses leading to a special diploma in manual training, five are taking courses leading to a special diploma in domestic science, while a large number are taking electives in these branches. Electives in this department to the amount of one year's work will be credited to candidates for any diploma on the same basis as electives in any other department. The enrollment in the various courses since the opening of the department is given below and indicates something of the interest in this special work.

Fall term, 1904. Mechanical drawing 9, woodworking 27, sewing 16.

Winter term, 1904-1905. Mechanical drawing 20, woodworking 46, elementary manual training 68, sewing 12, cooking 12.

Spring term, 1905. Mechanical drawing 27, woodworking 42, elementary manual training 25, sewing 12, cooking 10.

Summer term, 1905. Mechanical drawing 8, woodworking 13, elementary manual training 138, sewing 8, cooking 3.

Fall term, 1905. Mechanical drawing 14, woodworking 23, elementary manual training 120, wood turning 9, woodworking for training school boys 34, sewing 7, cooking 19, sewing for training school girls 42.

THE JUVENILE COURT LAW.

The end sought in the Juvenile Court law viz., the saving of unfortunate children from vicious surroundings and the reclaiming of delinquent ones from lives of crime, is of the greatest importance to the state. It is doubtless true that the law, for the short time it has been in force, has not fully met the expectations of its friends. But there should, in my judgment, be no thought of its repeal at this time. There should be sufficient time given in which to test its efficiency and if weaknesses are apparent, they should be promptly removed by amendment.

For the first fourteen months the law was in force, 287 cases under it were tried, 43 counties being represented.

That the practical workings of the law might be set forth by persons best qualified to express an opinion, I have asked the Judges of the district courts where cases under the law have been tried, to give their impressions of its value, and have invited suggestions as to how it could be strengthened so as to better accomplish the purposes for which it was intended.

COMMENTS OF DISTRICT JUDGES.

HON. A. H. McVEY, 9th DISTRICT.

This law has been administered by me in this county during the year 1905, and a great many juveniles have been arrested under it and dealt with during this time. I am clearly of the opinion that the law is a very beneficial one. Criminals of both sexes are made out of the neglected and abandoned boys and girls. Crime will never be reduced to its lowest terms until the state takes hold of the problem at its source, and stops from becoming criminals the boys and girls which it should protect, educate and direct. This law enables the courts to take charge of this class of children. The defect in the law is that there is no pro-

vision made for the expense of its administration. If the law shall be so amended as to enable the proper authorities to levy and collect a tax for the administration of the law, and for the establishment of detention homes, it will prove in my judgment the most beneficial law that has been enacted for many years. I am very much impressed with the fact that this law with some few amendments will prove very efficacious in the saving of children who would otherwise be added to the criminal classes.

HON. F. M. POWERS 16th DISTRICT.

We have no place for the detention of juvenile offenders, pending trial, and until such a place is provided, the law is not practical.

HON. MATTHEW CLEMENT MATTHEWS 19th DISTRICT

I am firmly convinced of the necessity of such a provision of our statutes, and the great advantages to be derived by the persons, whom it is intended to benefit by an intelligent application of its provisions.

The change that I would suggest in the law, is that the probation officer be paid a salary of at least \$50 per month in cities of more than twenty thousand population; \$25 in cities of more than ten thousand population; \$12.50 in cities of more than five thousand population, and in counties where there are no cities of more than five thousand, \$10 per month.

HON. G. W. BURNHAM, 7th DISTRICT.

I find many features of the law which are to be commended highly and it seems to me that it is a movement in the right direction to reach and care for the young who may be found under such circumstances and surrounded by such environments as must necessarily lead to crime and make them criminals, if not properly dealt with, and I believe the provisions of the juvenile court law furnish means by which they may be carefully treated and put in the way of reformation and led in such a direction as to bring about a reformation and build up character.

It has some defects that should be remedied. First, some provision by which in each community or, at least, in each county, there may be a probation officer with suitable compensation for the time and expense he may necessarily be put to in looking after delinquents and dependents and those who have committed some offense. Secondly, a provision that in each county seat there shall be provided a suitable place where those who may come under the provisions of the juvenile court law may be detained until their cases are disposed of.

HON. JAMES D. SMYTH, 20th DISTRICT.

So far as the workings of the law have come under my observation, the chief difficulty seems to be in the care of the children who are taken into the custody, pending the hearing their cases. * * * I suppose

in time this difficulty will be remedied by provision of suitable places for keeping juvenile criminals between the time of the arrest and hearing of their cases, though I do not know just how the expense of such provision will be met. * * * The officers in my district have experienced considerable difficulty in this regard but in other respects the law appears to have worked well.

HON. J. F. CLYDE, 12th DISTRICT.

It has been beneficial in its operation so far as I have observed it. We have had a little trouble in caring for the children pending the final hearing in some cases.

I believe the state will have to provide a home for dependent and neglected children other than the Industrial School, and not be entirely dependent on Home Societies and individuals.

HON. N. W. MACY, 15th DISTRICT.

It impresses me that the law is cumbersome and causes much delay, trouble and expense in dealing with very trivial matters at times. The District Court is somewhat removed at times from the location of some little offense and it seems like such matters could well be disposed of by a tribunal nearer the people. The law has some advantages and good features. It should be made quite clear that the grand jury has jurisdiction to inquire into charges made against minors and return indictments therein when no proceedings have been had before the juvenile court.

HON. FRANKLIN C. PLATT, 10th DISTRICT.

I have found the juvenile court law inadequate to the necessities of nearly every case that has come to my knowledge, particularly for the reason that I have found it impossible to find a suitable person or institution outside of the industrial Schools of the state, that have been willing to take charge of the children whom I have found it necessary to commit, and I have always been obliged to commit such children to the Industrial School at either Eldora or Mitchellville. In other respects I have no particular fault to find with the law, except with respect to the age limit, which in my judgment ought to be eighteen years in the case of girls and twenty-one years in the case of boys. I have found that a good many cases were beyond the jurisdiction of the court on account of the children being over sixteen years of age. In my judgment there ought to be a "home" established by the state to which children could be sent, who are not vicious or incorrigible, and where they would be cared for pending some other disposition of them.

HON. H. M. TOWNER, 3rd DISTRICT.

I have only one suggestion to make; Sec. 6 of the act provides for the appointment of probation officers and prescribes their duties, but

says: "Said probation officers to receive no compensation." I have found in specific instances that persons appointed have resigned because of this provision. I would suggest that this be changed to allow the court to fix compensation to be paid out of the public treasury for services rendered or expenses incurred, in the same manner as is now done by the court in fixing compensation of guardians ad litem, etc.

HON. W. R. GREEN, 15th DISTRICT.

I have been unable to see that the law brought about any change for the better, but it may be too early for the results to show. The provision that juvenile offenders should not be committed to a jail is absurd. We already had a provision that they should not be confined in the same apartments with the older prisoners, and this was enough. It has always been the custom when boys were merely under arrest if not of exceptionally bad character to let them go in the custody of their parents until trial.

HON. J. R. WHITAKER, 11th DISTRICT.

In this judicial district I find that there exists among the members of the bar and among the various district judges that I have talked with, a great deal of confusion as to what the law is or was intended to be. * * * I would recommend that the whole law be referred to the judiciary committee at the next session of the legislature, so that they may re-write it, and make it clear in its provision, and bring it out of its present chaotic condition.

HON. FRANK W. EICHELBERGER, 2nd DISTRICT.

About the only practical change I can recommend is to absolutely repeal the sentimental bosh.

HON. M. A. ROBERTS, 2nd DISTRICT.

I am inclined to favor an amendment thereto providing for the appointment of a probation officer by the board of supervisors and authorizing said board to fix his compensation, the law fixing a maximum amount.

However, I think the law has not been in force long enough to have a fair trial, and would favor leaving it alone at least two years longer before making any amendment whatever.

HON. H. BANK JR. 1st DISTRICT.

I would suggest that some provision be made for a suitable place for the confinement of juvenile offenders. The sheriff has no such accommodations as are required by the law, neither has the probation officer, and I think the County and City should be compelled to furnish quarters which will meet the requirements of the law.

I would also suggest the advisability of giving the Justices of the Peace jurisdiction in misdemeanor cases with authority to refer such

cases to the probation officers who may be appointed by the District Court. The Court is not always in session in any one County and in case of the absence of the Court it makes large expense to transport these juvenile offenders to the place where the Court is sitting, and there appears to be no good reason why the Justices should not have power to act in all cases of misdemeanor.

OPINION OF HON. B. F. COFFIN,

CLERK OF THE DISTRICT COURT, DES MOINES, IOWA.

The law in its present form is ineffective. There should be a detention home, a juvenile officer, judge and clerk at proper salary. It should be amended so as to provide for punishment of parents for neglect of children. I have been informed that there would have been as many more cases if the law as it now stands were effective.

CASES TRIED UNDER THE LAW SINCE JULY 4, 1904.

County.	Number of Cases.	County.	Number of Cases.
Adams.....	1	Linn.....	23
Appanoose.	5	Mahaska.....	18
Benton.....	7	Marion.....	1
Black Hawk.....	5	Marshall.....	3
Boone.....	1	Mills.....	1
Buena Vista.....	2	Mitchell.....	5
Clarke.....	1	Muscatine.....	1
Clinton.....	1	Page.....	6
Crawford.....	1	Polk.....	90
Des Moines.....	3	Pottawattamie.....	30
Dickinson.....	3	Scott.....	3
Dubuque.....	28	Taylor.....	3
Emmet.....	3	Van Buren.....	1
Fayette.....	2	Wapello.....	4
Hardin.....	1	Warren.....	3
Harrison.....	1	Washington.....	2
Howard.....	1	Wayne.....	2
Jasper.....	4	Webster.....	1
Johnson.....	2	Winnebago.....	2
Jones.....	2	Winneshek.....	2
Keokuk.....	1	Wright.....	2
Lee.....	9		

SOME SUGGESTIONS TO BETTER THE IOWA JUVENILE COURT LAW.

BY MRS. CORA B. HILLIS.

The most progressive development in judicial principles in the United States in the past five years is undoubtedly the establishment of Children's Courts.

The new system of saving delinquent and dependent children by formative, rather than by punitive methods has swept over this country until now twenty-five states and over three score cities have a Juvenile Court Law.

In the limited space at my disposal I cannot discuss the working of the law in Iowa, except to regret that the original bill presented by the Iowa Congress of Mothers was so seriously amended as to cripple its effectiveness. I can only indicate some changes which are based on long study of conditions in other states operating the law, and on wide correspondence with judges and juvenile court workers. I have compiled these needs into twelve suggestions, some of which might properly be separate acts, but all of which are laws in various other states.

1. A Broader Definition of Delinquency as in Colorado and Nebraska, thus giving wise supervisory care to a larger class of children not now receiving help or control, and who if neglected, will eventually fall into serious delinquency. See Colo., Neb., Oreg., Wash., etc.

2. Make it a Misdemeanor to put any child under sixteen years of age in any jail or lock-up, punishable by a fine not to exceed one hundred dollars. See laws of Indiana, Nebraska, Colorado, Tennessee, etc.

3. Provide for a Detention School in counties of 50,000 by separate act (as in Pennsylvania) and for detention homes or rooms in smaller communities by the boards of county supervisors, to be paid for out of county funds in small towns, or specifically by the city councils, making it mandatory to provide a suitable place to detain, train, discipline and care for delinquent and dependent children.

4. An Adult Delinquent Law to provide for the punishment of persons responsible for contributing to the delinquency of children, and punishable by fine not to exceed \$1000 or imprisonment in county jail not to exceed one year. Thus bringing to justice parents or others who encourage children to steal, beg, enter saloons or evil resorts, or otherwise make it easy for a little child to go wrong. A law which has been of wonderful influence in Colorado, Nebraska, etc. etc.

5. Provision for Appointment of Probation Officers by the Juvenile Court which in addition to volunteer officers, shall have in counties of 15,000 one probation officer who shall receive from the county \$3.00 per day for time of actual service.

In counties above 15,000 and up to 50,000, one or not to exceed two officers, shall be appointed who shall receive a monthly salary to be fixed by a majority vote of the board of supervisors. In counties over 50,000, there shall be two probation officers, one of whom must be woman, who shall receive \$1200 and \$1000 annually, to be paid out of county funds, said funds, as all others, for juvenile court expenses to be raised by special levy for such purposes.

6. A penalty for giving or selling cigarettes, tobacco or tobacco paper, cocaine, morphine or any noxious, stimulating or harmful drug to children under eighteen, thus correcting a terrible evil growing among school boys and street boys in every community.

7. Enlarge section 13 to compel parents if able, to support child, or contribute to support after it has been placed in another home, or even in a state institution, thus reaching effectively that class who by swearing to the incorrigibility of helpless children, rid themselves of their support.

8. To section 16 add in summing up the spirit of the law "that as far as possible, any delinquent child shall be treated, not as a criminal, but as misdirected and misguided, and needing aid, encouragement, help and assistance."

9. Increase the age limit to eighteen years, rather than sixteen. Judge Stubbs of Indianapolis truly says that the majority of children brought before the courts are by their habits of life deprived of normal growth, and that at eighteen years of age are often less mature mentally and physically than well cared for children of fourteen or fifteen."

10. Trial of Children's Cases before police magistrates or justices of the peace should also be strictly prohibited, under penalty for so doing, in all towns holding district court. Every child should receive the benefit of all the helps which are best secured in the Juvenile Court proper.

11. Juvenile Court Judges should be allowed extra compensation for extra work incurred, and should invariably hold the children's court in separate chambers from adult cases, withhold names from the press and endeavor to secure for each child the same privacy he would like for his own.

12. Provide for hearing of Juvenile cases in small towns, away from seat of district court by mayor or city attorney, that every child in Iowa shall have immediate attention to his needs without loss of time or money, in transportation or detention, or suffer by a deferred hearing.

Apart from the above suggestions for incorporation into a new law, sentiment should be created for four things:

First. Inauguration of the report system as practiced in Denver, Portland, Indianapolis, etc. If a boy is obliged to sacrifice his inclinations Saturday mornings to report to the court, he gets a feeling of personal responsibility and of the majesty of the law, not gained by probation without personal report.

Second. Special training for probation officers' work is essential to intelligent, efficient service, to the saving of the child to citizenship, and to the permanent upbuilding of his character and environment. Each officer should be given a civil service examination based on educational

qualification, knowledge of child nature, the psychology of childhood, sociology as related to conditions among the poor and the criminal, legal knowledge in the proper conduct of juvenile cases, and above all, an uncommon share of common sense as indicated in replies to questions of what one would do in a given case.

Third. Family ties must not be disturbed until all else fails. While temporary detention of a child may be disciplinary to both parents and children, the permanent removal of a child from his own home should only be resorted to after every effort has been made to correct the environment contributing to the child's delinquency. If parental responsibility and co-operation cannot be secured, after intelligent and patient effort by the probation officer, then the child should be placed in a detention school for a limited period, cleaned up morally and physically, trained to better thoughts, habits, manners and tastes; then put into an approved family home where he can lead a normal child life.

Except in cases of extreme delinquency, no child should be sent to a state reformatory institution until other formative and probationary agencies have been tried.

Fourth. Opportunity for social service and missionary work of the finest type is open to Volunteer probation officers. The Juvenile Court needs scores of earnest business men and women to each look after one or more children.

The list of states having a Juvenile Court law is as follows:

Illinois	Pennsylvania	Tennessee
Wisconsin	California	Georgia
New York	New Jersey	Washington
Maryland	Louisiana	Oregon
Ohio	Iowa	Hawaii
Colorado	Michigan	Texas
Missouri	Nebraska	Connecticut
Minnesota	Utah	District of Columbia
Indiana	New Hampshire	

CIRCULARS OF INFORMATION AND SUGGESTIONS
ISSUED IN 1904 and 1905.

To County Superintendents:

In keeping with a time-honored custom, I take this occasion to extend to you the greetings of the Department of Public Instruction, and to wish for you the largest possible success in the important office you have been called upon to fill.

The county superintendent may do very much for the advancement of the educational interests of his county, and it is with the hope of assisting the newly-elected county superintendents in particular that the following suggestions are offered:

VISITATION. School visitation, if wisely conducted, is of the greatest benefit to teachers and pupils, and I beg to urge that you spend as much time in the schools as you possibly can, consistent with your other official duties. In his visitation, a skillful superintendent will cause the teacher to know that he is her friend and helper. Even in the poorest school, you will find something to commend. A brief mention of the best things observed will open the way to helpful criticism. It is not best to discuss school affairs with the teacher in the presence of the pupils. If a private interview cannot be held with the teacher at the time of the visit, a letter indicating lines of improvement may be mailed, or she may be invited to call at the superintendent's office for conference.

In your visitation you should inspect the school records critically to the end that possible errors be detected and corrected. A careful memorandum should be made of the condition of the schoolhouse, the school grounds and the outbuildings; of the apparatus in use and the provisions for its care; of the number and condition of the books in the library, and the provision made for their protection. I would suggest that, where practicable, you invite one or more of the directors to accompany you on your

school visitation. Certainly you should find some means by which to acquaint the directors with the conditions of the school as you see them.

TEACHER'S MEETINGS. There is need of a good school sentiment in every school district. The patrons should always evince a keen interest in the success of the school. The superintendent may do very much to create and sustain a healthy public sentiment toward educational affairs. In his travels over the county he will have opportunity to talk *good schools* to a *few* people; but more people should be reached than is possible in the chance interview. Teachers' meetings held in the different parts of the county, serve as an excellent means to advance educational interests. These meetings should be well planned. Subjects for discussion should be carefully selected and wisely assigned. You should, if possible, be present to put spirit and enthusiasm into the meeting. Prior to the meeting, a card bearing a printed invitation should be sent to every patron in the part of the county where the meeting is to be held. These cards could be sent in quantity to the several teachers and by them given out to the pupils.

2

APPEALS. Tact and good judgment, on your part, will enable you, in most instances, to avoid appeal cases. Counsel forbearance and a spirit of conciliation. If you are asked to act as an arbitrator, do so only when you have a written agreement signed by both parties to abide by your decision. An appeal case will usually stir up animosities that will live for years, and always to the detriment of the school.

EXAMINATIONS. The licensing of teachers is the most important duty you will have to perform. Your discretionary power in the issuing of certificates is very great. If you are satisfied that an applicant is deficient in scholarship, or of incorrect habits of life, or physically incapacitated to render satisfactory service as a teacher, the certificate should not be issued, and the case should be promptly and finally dismissed.

I heartily commend to you the wise suggestion of my predecessor when he says: "The successful examiner must display

good judgment, great firmness, and be supplied with an abundance of common sense."

Lists of questions will be sent for the months of February, March, April, July, August September and October.

SPECIAL DAYS. For a number of years, this department has furnished the teachers of the State special day leaflets for Flag Day, Arbor Day, Decoration Day, and Thanksgiving Day programs. This policy will be continued. We hope to send you, by the first week of February, a sufficient number of the Flag Day leaflet to supply the schools of your county.

MANUAL FOR IOWA NORMAL INSTITUTES. A new edition of the Manual for Normal Institutes will be issued and ready for distribution in time for the summer institutes. A copy of this Manual, and a copy of the Hand-Book for Iowa Schools should be in the hands of every teacher under your supervision.

CONCLUSION. It is the earnest desire of this department to be helpful to you, and we ask in return your hearty co-operation. Through our united efforts the cause of public education may be greatly advanced within the biennial period upon which we have entered.

JOHN F. RIGGS,
Superintendent Public Instruction.

January 9, 1904.

CONCERNING FLAG DAY.

The American public school is a school of patriotism. All its pupils should become well grounded in those civic virtues which make for good citizenship. In no way can this training be so effectively given as in the study of the words and deeds of those, who, in public and private life, have exemplified the best qualities of American citizenship.

While patriotic instruction is in place every day of the year, it is particularly fitting that the anniversary of the birth of Washington be set apart for special patriotic exercises. Let every

pupil commit to memory and repeat on this occasion some patriotic sentiment, and let all unite in the singing of patriotic songs and in the salute to the flag.

JOHN F. RIGGS,
Superintendent of Public Instruction.

Feb. 1, 1904.

OFFICIAL CIRCULARS.

Note.—In accordance with section 2735, the county superintendent is expected to send a copy of this circular to each secretary to be read to the board at its meeting on the third Monday in March. It is important that the separate circular to the secretary be mailed at once, and it is suggested that both circulars be mailed under the same cover.

TO BOARDS OF DIRECTORS.

School directors perform a most important public service, and without pecuniary reward. Their duties, which are many, cannot be well performed without some sacrifice of time and much thoughtful attention to the educational interests intrusted to their care. The fact that you have consented to hold the honored position of school director implies your willingness to perform the reasonable duties your office imposes upon you.

It may not be amiss to call your attention at this time to certain minimum standards that should be maintained in all schools. The children in one district are entitled to as good school privileges as are provided for the children in other districts. There should be practical uniformity throughout the state (1) in the length of the school year, (2) in the intelligent supervision of all school buildings, and (3) in the care and judgment exercised in the selection of teachers.

1. **The Length of the School Year.** In this state the prevailing school year is nine months, usually divided into three terms—fall, winter and spring, the terms not necessarily of equal length. The fact that the average time the schools of Iowa were in session last year was eight months, indicates that many schools were in session an unreasonably short period. I beg to urge upon your attention the advisability of making your school year nine months if possible, or at least eight months.

In districts having but few children of school age it will often be advisable for the board, with the consent of the county superintendent, to temporarily close the school and transport the children to an adjoining district.

II. **Supervision of School Buildings.** The school board should provide for the employment of a competent person to put the school

grounds and outbuildings in proper condition, and to thoroughly clean the floors, walls and desks of the schoolroom a few days before the opening of each term of school, and should pay for this service from the contingent fund. The director should then personally inspect the schoolroom and outbuildings that he may satisfy himself that they are in good condition. Superintendents report that very many outbuildings connected with the schools throughout the State are filthy and repulsive. The interests of life, health and decency require that greater attention be given to this important part of school supervision.

III. Employment of Teachers. The most important and at the same time the most difficult duty directors have to perform is the employment of teachers. This duty should, as a rule, be performed by the full board. The board should, where practicable, employ teachers for the full school year, beginning with the fall term. While the contract should be made for the full year, it is advisable for boards, in the case of untried and inexperienced teachers, to reserve the right to terminate the contract at the close of the first term if the teacher's service has not proved satisfactory to the board.

I earnestly recommend that you determine the salary you will pay for the year and make it a matter of record. It is quite customary to pay \$5 or \$10 per month more to a teacher holding a two years' certificate than to one holding a low grade certificate. This policy is heartily recommended. A fixed purpose on your part to pay liberal salaries will attract many applicants and make it possible for you to select capable, tactful teachers.

Library. Your attention is called to the provisions of the library law. This law is mandatory. Your school treasurer is required to withhold for the purchase of library books 5 cents for each person of school age in your school corporation, and a larger amount (up to the limit of 15 cents) if directed by the board.

School boards have very generally complied fully with the provisions of this law. Your attention is now called to the necessity of installing book cases or other means for the protection of the books where such provision has not been made.

Arbor Day. Friday, April 29th, will be observed throughout the state as Arbor Day. All public school teachers of the state will be furnished with the Arbor Day manual, now in preparation, and you are asked to lend your assistance in making the celebration a notable one in your schools. In this connection your attention is called to section 2787 of the School Laws. If the provisions of this statute are not already met in your district April 29th will be an excellent time to give it effect.

Conclusion. It is our wish to co-operate with you fully in the great work of advancing the educational interests of Iowa and it is our hope that the schools under your supervision will steadily advance in efficiency.

February 20, 1904.

JOHN F. RIGGS,
Superintendent of Public Instruction.

March Meeting of Boards. The boards of all school corporations hold their first regular meeting on the third Monday in March. No action of the new board would have any force if taken before that date. The place of meeting must be within the civil township in which the corporation is situated. Members elect may qualify on or before the third Monday in March. In case of failure to elect, or to qualify, the incumbent may continue in office. If he fails to qualify there is a vacancy to be filled by the board; and the person appointed holds only until the next annual meeting of the electors. A director may administer the oath to any director-elect and to the president; or such person may qualify before some one authorized by law to take an acknowledgment. Every duty imposed upon the board as a body, in order to have legal standing, must be performed at a regular or special meeting, and be made a matter of record.

At this meeting boards are empowered:

1. To admit members-elect, and to fill the membership of the board. See sections 2757, 2758 and 2771.
2. To elect by ballot from the board a president, who must take the oath of office required by section 5, article 11, constitution of Iowa. Section 2757.
3. To require the secretary to file with the officers named in section 2766, a certificate of the election, qualification and post office address of the president, secretary and treasurer.
4. To transfer any surplus in the schoolhouse fund unappropriated, to either the contingent or teachers' fund, if instructed by the electors to do so. Sections 2749 and 2778.
5. To provide for the teaching of any special study ordered by the electors to be taught as a branch. Sections 2749 and 2778.
6. To take the proper steps to carry out the express wishes of the electors upon matters within the control of such electors. Sections 2778 and 2779.
7. To make any contracts, purchases, payments, and sales necessary to carry out a vote of the electors. Section 2778.
8. To confer with the county superintendent as to the most approved plan for the erection of any schoolhouse. Section 2779.
9. To fix schoolhouse sites and to order the removal of any schoolhouse. Section 2773.
10. To establish graded or union schools wherever they may be desirable. Section 2776.
11. To prescribe a course of study and the branches to be taught. Section 2772. This must include the subjects directed to be taught in all schools by section 2775.

12. To adopt such rules and regulations as may be needed for the general government of the schools. Section 2772.

13. To provide for change of text-books, if so voted by the electors. Section 2829.

14. To use contingent fund in the treasury to purchase records, dictionaries, library books, maps, and apparatus, to the extent of \$25 yearly for each schoolroom. Section 2783.

15. To furnish the necessary books to indigent pupils. Section 2783. If free text-books have been voted, the board will take measures to carry out such vote.

16. To give especial attention to the matter of convenient water-closets, as required by the mandatory provisions of section 2784.

17. Where county uniformity is not in force, to purchase text-books to be resold to pupils, in accordance with sections 2824 to 2828.

18. To direct shade trees set out on each site where the required number is not now in growing condition. Section 2787.

19. To effect an insurance on school property with unappropriated contingent fund. Section 2783.

20. To examine the books and accounts of the treasurer, and make a proper settlement with him. Sections 2780 and 2769.

21. To make such rules and regulations as may be thought necessary to govern and control the board as a body. Section 2772.

22. In school townships, to adopt rules and regulations for the government of each director in the discharge of his official duties. Sections 2772 and 2785.

23. To determine the number of schools, the time more than six months they shall be taught, and where each child shall attend school. Section 2773.

24. To elect teachers and to fix the compensation of each teacher. Section 2778.

25. To estimate the amounts required for the teachers' and contingent funds, and for text-books, and cause the secretary to certify the same with the amount voted by the electors for schoolhouse purposes, to the board of supervisors. Sections 2753, 2806 and 2825.

26. In school townships, to apportion the schoolhouse taxes among the subdistricts, and cause the secretary to certify such appointment in strict accordance with section 2806.

27. To direct upon what terms non-residents not entitled by section 2803 to attend, may be admitted. Section 2804.

28. To arrange for the instruction of children in other districts and to provide for transporting children to school. Section 2774.

29. To provide for the visitation of the schools of the district by one or more of the members of the board. Section 2782.

30. In independent school districts, to make provision for a kindergarten for the instruction of small children. Section 2777.

31. To vote a rate of schoolhouse tax to pay interest on bonds, or to pay the principal maturing, if the electors have failed so to vote. Section 2813.

32. To provide for the enforcement of the provisions of the law for compulsory education. Chapter 128, Acts of the Twenty-Ninth General Assembly.

33. To take any other action consistent with the law that will tend to increase the value and efficiency of the schools.

TO THE SECRETARY:

Your particular attention is called to the provisions of section 2746 and section 2749 of the School Laws of Iowa, edition of 1902.

The supreme court has held in a decision rendered October 27, 1902, in the case of *Goerdts vs. Trumm*, that the powers delegated under section 2749 can be exercised only when notice has been given as provided by section 2746, and that such notice must be specific in the statement of the propositions to be submitted.

Under this decision of the supreme court it will be necessary for your board to direct you to include in your notice of the annual meeting to be held on the second Monday in March specific statement of such propositions as they may desire, or may be required to have submitted to the voters.

It has been held by this department heretofore that the "powers" enumerated under section 2749 could be exercised by the voters when legally assembled even though the ten days' notice had not been given (see note 2, section 2746). But this late ruling of the supreme court not only makes such notice necessary, but requires that the particular propositions to be considered must be clearly set forth in your notice.

JOHN F. RIGGS,
Superintendent Public Instruction.

February 20, 1904.

REPORT OF THE
COUNTY SUPERINTENDENTS CONVENTIONS,
SPRING OF 1904.

TO THE COUNTY SUPERINTENDENT:

In accordance with Section 2622 of the Code which provides that the Superintendent of Public Instruction may meet the county superintendents at such points in the State as may be most suitable, you are hereby called to meet in convention as follows:

Muscatine, March 31 and April 1.

Sioux City, April 14 and 15.

Waterloo, April 19 and 20.

Council Bluffs, April 26 and 27.

Des Moines, April 28 and 29.

Meetings will begin at one o'clock p. m. on the first date given.

Section 2742 guarantees to you the expenses incurred in attendance upon one of these meetings. It is expected that you will be present and take an active part, unless for some good reason you are prevented from attending.

JOHN F. RIGGS,
Superintendent Public Instruction.

SUGGESTIVE SUBJECTS FOR DISCUSSION.

1. Recent school legislation.
2. The National Educational Association at St. Louis, June 28 to July 1.
3. How may better salaries for teachers be secured?
4. How may the institutes be made of greater value to the teachers?
5. Should examination for teachers' certificates immediately follow the institute?
6. What shall be done with the incompetent teachers?
7. Means of securing high school advantages for country youth.

8. How may the department of public instruction render better service to the cause of common school education?
9. The Iowa state teachers' reading circle.
10. How may school sites be beautified and school property improved?
11. Should agriculture be taught in the district schools?
12. What should be the standard for first grade, second grade and third grade certificates?
13. Is consolidation of schools practical in any part of your county?

CONCERNING ARBOR DAY.

April 29th as Arbor Day should be a red letter day in our schools. On this day in particular the minds of the children should be turned to the contemplation of nature in her many forms. It is recommended that the day be celebrated in speech and song, and in the planting of trees and in the beautifying of school grounds. Every school site should be made a place of beauty. In every school district there are people of taste and refinement. Let these organize themselves into a school Improvement Society and, with the children as auxiliary members, plan and execute improvements on April 29th that will add to the permanent beauty and attractiveness of the school premises. Where such a society is organized its work should not end with the day, but through the summer vacation the school grounds should be cared for so that all who look upon them will see a place of beauty and not a wilderness of weeds.

School grounds should be laid off with design,—with flower beds, with grassy plots and with play-grounds and screened out-buildings for boys and girls. The school in external appearance would then become one of the most beautiful spots in the district in which every child and every citizen would take pride; and this

attractive appearance should, so far as possible, be maintained throughout the year.

It is my earnest hope that Arbor Day will be a glad, joyful day for the children of Iowa.

JOHN F. RIGGS,

Superintendent of Public Instruction.

March 16, 1904.

RULING CONCERNING INSTITUTES.

TO THE COUNTY SUPERINTENDENT:

An official opinion from this department has been asked by a number of county superintendents on the following question: "Can expenses incurred by a county superintendent in conducting a professional teachers' institute in addition to the regular normal institute be paid from the institute fund?"

Section 2626 says: "He (superintendent of public instruction) shall appoint, upon the request of the county superintendents, the time and place for holding teachers' institutes, such institutes to be called when it is probable that not less than twenty teacher will be present, and remain in session not less than six working days, of which time and place of meeting he shall give notice to the county superintendent of the proper county."

It is the evident intent of the law that the six working days required as a minimum shall be consecutive days. There is, however, nothing in the law to prevent a county superintendent's holding one or more subsequent sessions of the normal institute during the same year, provided application is made in due form (all sessions to be designated in the same application) and approved by the superintendent of public instruction.

No money can be paid from the institute fund for services rendered in connection with the normal institute, whether the initial or a subsequent session, that has not been regularly appointed by the superintendent of public instruction.

JOHN F. RIGGS,

Superintendent of Public Instruction.

April 25, 1904.

CIRCULAR CONCERNING SCHOOL ENUMERATION.

Note to the County Superintendent:

You will please forward a copy of this circular to the secretary of each independent district in your county, and a copy to each subdirector in school townships.

THE SCHOOL ENUMERATION.

TO DIRECTORS AND SECRETARIES:

It is of the greatest importance that the School census be accurate and complete. Accuracy in statistics is essential *always*, and particularly so in this case, since the interest on the permanent school fund to the amount of over \$200,000 per year is distributed among the several districts of the state in proportion to the school enumeration. The omission of a name that belongs on your list will, therefore, lead to a direct financial loss to your district.

The official reports made to this office for the past five years show a surprising variation from year to year in the number of persons in the state between the ages of five and twenty-one years, and give rise to the suspicion that errors may have been made in the taking of the census. Indeed, it is very evident that either the persons taking the School census or those taking the Federal census are in serious error, since the Federal census taken in 1900 shows the number of persons in the state that year, between the ages of five and twenty-one years to be 767,870, while the returns from school officers show the number to be 731,154.

The School census, as reported to this office for the past five years, is as follows:

In 1899 persons between five and twenty-one.....	727,775
In 1900 persons between five and twenty-one.....	731,154
In 1901 persons between five and twenty-one.....	735,159
In 1902 persons between five and twenty-one	728,810
In 1903 persons between five and twenty-one.....	721,486

The law requires that the School census shall be taken between the first and tenth days of September, in each year.

Every person in the district who on the tenth day of September has reached the fifth and not passed the twenty-first birthday is to be counted. To be complete your list must include all persons of the stipulated age, even if married or temporarily absent to attend school or engage in work. A child in one of the charitable or reformatory institutions must be enumerated in the district where his parents reside.

Your attention is called to the School Laws, Edition of 1902 as follows: Section 2785 and notes 15 to 18, page 61; Section 9 of Chapter 128, page 108, and to Form Number 34, page 135.

JOHN F. RIGGS,

Superintendent Public Instruction.

August 12, 1904.

CIRCULARS.

TO BOARDS OF DIRECTORS:

Note to County Superintendents: In accordance with section 2735, you will please send to the secretary of every school corporation in your county a copy of this circular to be read at the regular meeting of the board of directors on the third Monday in September.

REPORTS OF SCHOOL OFFICERS.

Boards of directors when convened on the third Monday in September may exercise a large range of powers as named in certain sections of the school law to which reference is made herein. Your attention is called to the fact that some of these powers are mandatory, chief of which is the settlement with the school treasurer, which settlement must be made in strict compliance with the law.

Full and complete reports must be made at the annual meeting in September by both the treasurer and the secretary. These reports must be verified and they should then be approved by the board. Immediately after the reports are approved, an exact copy of each should be made by the proper officer, and the copy mailed at once to the county superintendent.

COMPULSORY SCHOOL ATTENDENCE.

An important change in the compulsory attendance law was made by the Thirtieth General Assembly. The law now requires that all children in Iowa who have reached the seventh and not passed the fourteenth birthday are required to attend school (public or private) for sixteen (16) consecutive weeks. Attendance must begin as soon after the first of September as the school may open, but the board of directors may postpone the date of entry for any child to a date not later than the first Monday in December.

The duty of school directors in enforcing this law, and the penalties to which they are liable in failing or refusing to enforce the same, are set forth in section 6, page 108 of the School Laws of 1902.

THE LIBRARY LAW.

Attention is again called to the provisions of the Library Law which the courts have held to be mandatory.

In the case of N. Willett, County Attorney, v. Rural Independent District No. 5, Military Township, Winneshiek County, O. T. Lommen, Treasurer, a decision was handed down by the district judge in the Winneshiek county May term of court, 1904, to the effect that the school treasurer must, annually, withhold five cents from the semi-annual apportionment for each person of school age in the corporation, the same to be invested by the board in library books.

A new and enlarged library list has just been issued, as required by law, and will be in the hands of your county superintendent not later than October 1st.

TEACHERS' WAGES AND TENURE.

The common practice of paying a varying wage through the year, that is, paying less per month during the fall and spring than during the winter, is not to be commended.

It is the general practice in town and city districts to employ teachers for the entire school year, beginning with the fall and ending with the spring term, and to pay the same salary for each of the nine months. A number of the school townships in Iowa have recently adopted this plan and we commend it to the favor of others. Tried and competent teachers should be given a contract for the entire year—not for a term at a time, and wages should be paid commensurate with the services rendered. Reports indicate that, within the past year, many boards have advanced the wages of their teachers, but this has been by no means general. The eighteenth report just issued by the commissioner of the labor bureau of the United States shows that the average cost of living in this country has increased 15.5 per cent since 1896. It may be interesting for you to compare the wages you now pay

your teachers with the wages paid eight and ten years ago. The advance in wages should at least keep pace with the increase in the cost of living.

With the earnest hope that the year upon which your schools are entering may witness the best possible progress for the children of Iowa.

Very truly yours,

JOHN F. RIGGS,
Superintendent Public Instruction.

August 15, 1904.

September Meeting. The boards of all school districts are required by law to hold a regular meeting on the third Monday in September. Among the items of business that may be transacted are the following:

1. To fill, by ballot, any vacancies among the officers or members of the board. Section 2771.
2. To examine the books and accounts of the treasurer, and make a proper settlement with him. Section 2769.
3. To elect a secretary, and also a treasurer, in all districts in which he is not chosen by the electors. Section 2757.
4. To fix the compensation of secretary and treasurer. Section 2780. And to fix the amount of their bonds. Section 2760.
5. To fix schoolhouse sites, and to order the removal of any schoolhouse. Section 2773.
6. To establish graded and higher schools wherever they may be necessary. Section 2776.
7. To prescribe a course of study in the branches to be taught. Section 2772.
8. To adopt such rules and regulations as may be necessary for its own government, as a board, and that of the directors, officers, teachers and pupils. Section 2772.
9. To determine the number of schools, and the time more than six months that they shall be taught during the year. Section 2773.
10. To direct upon what terms nonresidents, not entitled by section 2773 to attend free of tuition, may be admitted. Section 2804.
11. To effect an insurance on school property with contingent fund not otherwise appropriated. Section 2783.
12. To adopt rules and regulations for the government of the director in each subdistrict in school townships, in the proper discharge of his official duties. Section 2785.
13. To make any contracts, purchases, payments and sales necessary to carry out a vote of the electors. Sections 2749 and 2778.

14. To use any unappropriated contingent fund in the treasury to purchase dictionaries, library books, maps, charts and apparatus. Section 2783.

15. To arrange for building and maintaining fences about school-house grounds. Chapter 88, laws of Twenty-seventh General Assembly. See page 99, School Laws of 1902.

16. To issue "funding bonds" to pay any judgment, or any bonds lawfully issued against the corporation. Section 2812.

17. To give special attention to the matter of convenient water-closets, as required by the mandatory provisions of the law. Section 2784.

18. To instruct the treasurer how much more than five cents for each pupil enumerated shall be withheld for library purposes. Chapter 110, Acts of the Twenty-eighth General Assembly. Page 103, Laws of 1902.

19. To instruct the secretary to file with the county superintendent, county auditor and county treasurer the name and postoffice address of the president, secretary and treasurer of the district, promptly according to the law. Section 2766.

20. To take any other action consistent with the law that will tend to increase the value and efficiency of the schools.

TO COUNTY SUPERINTENDENTS:

Your attention is called to two questions:

I. CONCERNING THE PURCHASE OF LIBRARY BOOKS.

The text of the library law will be found on pages three and four of the new library catalogue.

Your particular attention is called to the fact that, under this act, boards must purchase from the list of books recommended by the state board of educational examiners and of the editions specified. It is not required that the purchase be made of any particular firm. It will not, however, be a compliance with the law to buy a book of any person or firm paying a stipulated price with the understanding that another book shall be given gratis, *unless both books* are found on the new catalogue list and of the edition there named.

The duty of the school board is first to buy books to an amount aggregating at least five cents for each person of school age in the school corporation, selecting the titles and editions from the catalogue prepared by the state board of examiners. Should it then be desired to purchase additional books under section 2783 of the code, such purchase may be without any restrictions as to the list from which the selections may be made.

The library catalogue is to be sent to school officers in the form in which you receive it. It is not permissible to paste in or attach to the catalogue other lists of books, since such additions would be understood by many to be made with the authority of the board of educational examiners and this would lead to serious errors and much confusion. If you wish to forward to school officers other lists of books in addition to the list prepared by the state board of educational examiners, we would suggest that you send same under separate cover.

II. CONCERNING SEPARATE REGISTER FOR NON-RESIDENT PUPILS.

We wish you to call the attention of your teachers and school secretaries to the fact that, where non-resident pupils are enrolled, a separate register shall be kept for such pupils, and shall be certified to the secretary as required by section 2789 of the School Laws.

The blanks for the secretary's annual report will hereafter call for a report of the number of non-resident pupils enrolled; also for a report of the number of pupils who have, since the last annual report, been enrolled in some other public school of the state.

In many cases, within the course of the school year, pupils are enrolled in two or more districts. Since each secretary reports the total number of different pupils enrolled in his district it is evident that many pupils are counted twice and that the aggregate enrollment, as shown in the Biennial Report, is too great. We shall attempt next year to correct this error, and we wish you to inform your secretaries that such report will be required.

It is also suggested that you instruct your teachers to make to the secretary a separate report of the names of non-resident pupils with the attendance of each; also to state definitely the total number of pupils who previously during the school year have been in attendance on some other public school of the state.

Very truly yours,

JOHN F. RIGGS,

Superintendent Public Instruction.

October 17, 1904.

TO BOARDS OF DIRECTORS.

Under the law, new directors assume their duties on the third Monday in March, at which time the board organizes for the year by the election of a president. But the annual reports of the officers of the board are not due till the September following, thus giving us the anomaly of the school year for certain purposes closing on the third Monday in March, and for other purposes closing on the third Monday in September. This arrangement is unfortunate since school boards, particularly in school townships are encouraged to make the *term* and not the *year* the unit for school work, the selection of teachers in most cases occurring twice or three times a year.

It will, in my judgment, be a distinct gain to the schools of Iowa when *all* school boards shall come to consider the school year as *beginning* after the long summer vacation, and *closing* just before the next succeeding summer vacation, the year broken at the Christmas time and in March by short vacations, but with the unity of the work disturbed as little as possible.

The contracts of several thousand rural teachers have expired or are about to expire, and in such cases school boards will be called upon to elect their successors for the spring term. I can not urge too strongly that all teachers who have proven themselves competent and successful be elected for the spring term as their own successors, and that beginning with the fall term 1905, all teachers of known efficiency be chosen with the distinct

agreement that they are to hold their positions for the entire year, and not for one or two terms only.

The need of this recommendation will be apparent when it is remembered that last year only 34 per cent of the one-room country schools of the State had the same teacher through the entire year. A more permanent tenure for teachers and good salaries for good teachers is one of the crying needs of our schools.

In this connection it is pertinent to mention that fewer teachers are required than now find employment in the schools of the State. Last year very nearly one-third of our rural schools had an average daily attendance of ten or less. Many of these schools could be temporarily closed under section 2774 of the School Laws. This would mean (1) fewer teachers; hence, the possibility of employing the better and eliminating the poorer ones; (2) better school advantages for the children, and (3) a financial saving to the districts.

That the above suggestions may stand out with greater emphasis, I refrain from the discussion in this circular of less urgent duties that will claim your attention.

Very truly yours,

JOHN F. RIGGS,

Superintendent Public Instruction.

Des Moines, Iowa, February 14, 1905.

MARCH MEETING.

REFERENCES TO THE LAW.

Date. The first annual meeting of the board of all school corporations shall be held on the third Monday in March. Section 2757. It is mandatory that the board meet on this date.

Organization. The organization may be effected by electing a president. Section 2757.

President a Member. The president shall be a member of the board. Section 2757.

President May Vote. The president has the same right to vote that any member has. Section 2757.

Directors Qualify. Each person shall upon assuming his duties as director qualify as such. Section 2758. So also, the member chosen as president shall qualify as such. (Constitution, article 11, section 5.)

Who May Administer. A director may administer the oath to a director-elect. Section 2758. For other officers who may administer the oath, see section 393 of the code.

Secretary May Not Administer. The secretary is not authorized to administer the oath to a director-elect or to a president-elect. (101 Iowa, 382.)

When May Directors Qualify. A director-elect has until the close of the third Monday in March in which to qualify. Section 2758. One who holds over has ten days from the third Monday in March. (Code, section 1275.) One appointed to fill a vacancy on the board has ten days from the date of appointment in which to qualify. (Code, section 1275.)

Hold Over. If a director-elect fails to qualify by the close of the third Monday in March, if he is not his own successor, his predecessor may hold over by qualifying anew. (Code, section 1265.)

Vacancies—How Created. 1. By death. 2. By resignation. 3. By failure of director-elect, who was chosen to succeed himself, to qualify by the close of the third Monday in March. 4. By failure of one who might hold over to qualify within ten days from the third Monday in March. 5. By failure of one appointed to fill a vacancy to qualify within ten days from such appointment.

Vacancies—How Filled. Vacancies shall be filled by the board, until the next annual meeting of the electors. Section 2758.

Vacancies Not Anticipated. The board may not anticipate a vacancy. Appointments may not be made until the vacancy occurs. Section 2758.

By Ballot. All officers of the board and all persons appointed to fill vacancies shall be chosen by ballot. Sections 2757 and 2771.

Quorum. A majority of the board constitutes a quorum and may transact business. Section 2771. A minority may not transact business, but may arrange for an adjourned meeting of the board. Section 2771.

No Quorum at March Meeting. In case there is not a quorum at the regular March meeting, the minority present should effect a temporary organization by choosing a temporary president (Section 2772) and should fix a date and place for an adjourned meeting, at which time a permanent organization may be effected. Section 2771.

School taxes—By Whom Estimated. The board shall estimate the amounts needed for the teachers' fund and contingent fund. Section

2806. The amount for schoolhouse fund is voted by the electors at the annual meeting (Section 2749) or at a special meeting. Section 2750.

Limit of Taxation. For teachers' fund, fifteen dollars for each person of school age. Section 2806. For contingent fund, five dollars for each person of school age. Section 2806. However, each school corporation may estimate seventy-five dollars. Section 2806. Also, five dollars for each person of school age may be levied for transportation. Section 2806.

How Estimated. The amounts needed shall be estimated and certified, except in corporations containing territory in two or more counties, the estimate may be made in mills. Section 2806.

When Estimated. School taxes must be estimated at the regular March meeting or at a special meeting, called for that purpose, not later than the third Monday in May. Section 2806.

Taxes Certified. All taxes voted by the electors or estimated by the board shall be certified to the board of supervisors by the secretary within five days from the date the board makes its estimate. Section 2667.

Election of Teachers. The board shall elect all teachers. Section 2778. But the board may authorize a sub-director to select a teacher for his school. Section 2778. This, however, is a temporary delegation of authority and may be exercised but once by the sub-director.

Closing Small Schools. The board may determine the number of schools that shall be in session. Section 2773. They may determine the particular school each child shall attend. Section 2773. With consent of the county superintendent, small schools may be closed. Section 2774.

Transportation. The board may provide for transportation to a school in the same or another corporation. Sections 2774 and 2806.

Miscellaneous. The board may take any action authorized by law or clearly implied that will increase the efficiency of the schools.

TO THE SECRETARY:

As the time for the annual meeting of the electors of the school corporation draws near, we wish to call your attention to the statutory provisions concerning this meeting and urge you to do all in your power to so notify the electors that all propositions which the board, or the electors by petition, desire presented, may legally come before the meeting.

JOHN F. RIGGS,

February 14, 1905.

Superintendent Public Instruction.

Notice Mandatory. It is mandatory upon the secretary to post notices for this meeting in at least five public places at least ten days before the second Monday in March. Sections 2746 and 2763. For corporations

of five thousand or more inhabitants a notice shall be posted in each precinct and published in a newspaper. Section 2755.

Date. The date of the meeting is the second Monday in March. NO OTHER DAY WILL DO. The meeting can not adjourn to another date. Section 2746 and Note 1.

Hour of Beginning. In school corporations of five thousand or more inhabitants the polls shall open at 9:00 a. m. Section 2756. In all other corporations the polls shall open at 1:00 p. m. Section 2754.

Length of Meeting. In school corporations having five thousand or more inhabitants the polls shall remain open from 9:00 a. m. to 7:00 p. m. Section 2756. In independent city or town districts not included in above class they shall remain open at least five hours. Section 2754. In rural independent districts and school townships they shall remain open at least two hours. Section 2754.

Organization of Meeting. The president and secretary of the board, with one of the directors shall act as judges of election. In the absence of any of these officers, the electors present shall fill the vacancy from their number. Section 2746. For corporations of five thousand or more the board shall select one of its members and two voters of the precinct as judges of election. Section 2756.

Election of Director. All independent school corporations elect directors at this meeting. Section 2746. School townships containing an even number of sub-districts elect a director-at-large. Section 2752. The director-at-large shall be chosen by the electors at the annual meeting. (Ruling of Superintendent of Public Instruction.)

Certificates. The judges of election shall issue certificates of election to the directors chosen. Section 2746.

Tie Vote. A tie vote shall be publicly determined by lot, forthwith before adjournment, under the direction of the judges. Section 2754.

Who May Be Directors. A director may be of either sex, and must, at the time of election or appointment, be a citizen and a resident of the corporation and over twenty-one years old, and if a male, he must be a qualified voter of the corporation. Section 2748.

Who May Vote. To have the right to vote at the annual meeting, one must have the same qualifications as for voting at the general election and must be at the time a resident of the school corporation. Section 2747.

Qualifications of Electors. To be entitled to the right of suffrage, a person must be (1) a male, (2) a citizen of the United States, (3) at least twenty-one years of age, (4) a resident of the State six months next preceding the election, (5) of the county sixty days. (Constitution, article 2, section 1. 69 Iowa, 368, and 75 Iowa, 220. See note 1, section 2747, School laws, 1902.) Foreign born residents must have completed naturalization to be eligible to vote.

Citizenship. All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States, and of the State wherein they reside. (Constitution of the United States, Amendment XIV.)

Registration. Registration is necessary in corporations of five thousand or more inhabitants. Section 2755 and opinion Attorney-General.

Women Voting. Women who otherwise have the qualifications of voters may vote on propositions for the issuing of bonds or for increasing the tax levy. Section 2747.

Powers of Electors at Annual Meeting.

1. To direct a change of text-books. Section 2749. But the board makes all adoptions of text-books. Sections 2824 and 2829.

2. To direct the sale or make other disposition of any schoolhouse or site belonging to the corporation, and the application to be made of the proceeds of such sale. Section 2749.

3. To add branches to the course of study. Section 2749. Such action is mandatory on the board. (4 Iowa, 564, note 8, section 2749) But they may not otherwise change the course of study. Notes 9 and 10 section 2749. The board shall prescribe a course of study. Section 2772.

4. To instruct the board that school buildings may or may not be used for meetings of public interest. Section 2749. In the absence of instructions from the electors, the board shall determine, it being charged with the control and management of the property of the corporation. Section 2745 and 2772.

5. To direct the transfer of any surplus in the schoolhouse fund to the teachers' or contingent fund. Section 2749. The transfer from one fund to another can be made only at the annual meeting; must be from the schoolhouse fund; and must be ordered by the electors.

6. To authorize the board to obtain at the expense of the corporation roads for proper access to its schoolhouses. Section 2749.

7. To vote a schoolhouse tax, not to exceed ten mills on the dollar. Section 2749.

8. To authorize the board to issue school building bonds. Section 2812.

Limit of Indebtedness. The school corporation may not become indebted to exceed one and one-fourth per cent of the actual value of the property in the corporation. Section 2, chapter 41, Acts of the Twenty-eighth General Assembly. Under certain conditions a district may become indebted for certain purposes not to exceed two and one-half per cent of the actual value of the taxable property. This can be done only at a special election called for that purpose. Section 1, chapter 114, Acts of the Thirtieth General Assembly. The constitutional limit is five per cent of the "value of the taxable property."

Tax Levy Not Indebtedness. The law does not consider taxes levied as outstanding indebtedness. Note 4, Section 2812.

Notice Necessary. No proposition may be acted upon by the electors at the regular meeting on the second Monday in March or at a special meeting, except that it be advertised by notices as provided in sections 2746 and 2755. (118 Iowa, 207.)

Board May Direct. The board may direct that certain propositions will come before the meeting. Section 2749.

Electors—Petition. When petitioned, it is mandatory upon the board to require notice given. Section 2749. When a petition has been properly filed, it is the duty of the secretary to give legal notice.

Poll Book. At the annual meeting the secretary shall record in a book provided for that purpose, the names of all persons voting thereat, the number of votes cast for each candidate, and for and against each proposition submitted. Section 2761.

By Ballot. All propositions must be voted upon by ballot. Section 2749. Members of the board in all independent districts shall be chosen by ballot. Section 2754. A director-at-large for a school township shall be chosen by ballot. Sections 2851, 2752 and 2823. Constitution, Article 2, Section 6.

Form of Propositions. All propositions shall be voted upon in substantially the following form: "Shall a change of text-books be directed?" (or other question as the case may be); and the voter shall designate his choice by writing the word "yes" or "no" in an appropriate place on the ballot. Section 2749.

TO THE SUB-DIRECTOR:

As the time for the annual sub-district meeting draws near, we desire to call your attention to the statutory provisions governing this meeting and urge you to do all in your power to so notify the electors that all questions that may come before the meeting may be legally presented.

JOHN F. RIGGS,

February 14, 1905.

Superintendent Public Instruction.

Sub-District Meeting. The meeting of the voters of the sub-district shall be held on the first Monday in March. Section 2751.

Notice. At least five days' notice shall be given by posting in at least three places in the district. Section 2751. If a special schoolhouse tax is to be voted ten days' notice must be given. Section 2753.

By Whom Posted. Notices for the sub-district meeting shall be posted by the director. If there is no director they shall be posted by the secretary of the board. Section 2751.

Hour of Beginning. The meeting shall not organize earlier than 9:00 o'clock a. m. Section 2751.

Closing. The meeting shall not adjourn earlier than 12:00 m. Section 2751.

Duration. The polls shall remain open at least two hours. Section 2754, Section 2823 and Note 2, Section 2751.

Organization of Meeting. The meeting shall organize by the election of a chairman and secretary who shall act as judges of election. Section 2751.

Judges May Vote. The chairman and secretary of the sub-district meeting may vote the same as other electors. Note 8, Section 2751.

Judges Not to Qualify. The chairman and secretary of the sub-district meeting are not required to qualify. Note 7, Section 2751.

Certificate of Election. The judges shall declare the result of the election and issue a certificate of election to the person chosen director. Sections 2746 and 2823.

Tie Vote. A tie vote shall be publicly determined by lot forthwith, before adjournment, under the direction of the judges. Section 2754.

By Ballot. The sub-director shall be chosen by ballot. Section 2751.

Caucus. An informal ballot or caucus can be no part of the sub-district meeting. If it is desired to select candidates this must be done before the organization of the meeting. But one lawful ballot may be cast or one vote taken. Note 13, Section 2751.

Who May Vote. To have the right to vote at the annual sub-district meeting one must have the same qualifications as for voting at the general election and must be at the time a resident of the sub-district. Section 2744.

Qualifications of Electors. To be entitled to the right of suffrage, a person must be (1) a male, (2) a citizen of the United States, (3) at least twenty-one years of age, (4) a resident of the state six months next preceding the election, (5) of the county sixty days. (Constitution, Article 2, Section 1. 69 Iowa, 368, and 75 Iowa, 220. See Note 1, Section 2747, School Laws 1902.) Foreign born residents must have completed naturalization to be eligible to vote.

Citizenship. All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States, and of the State wherein they reside. (Constitution of United States, Amendment XIV.)

Powers of Electors at Sub-District Meetings.

1. To elect a chairman and secretary. Section 2751.
2. To elect a director for the sub-district. Section 2751.
3. To vote additional schoolhouse tax on the sub-district. Section 2753.

Limit of Special Tax. The amount of the special tax voted at the sub-district meeting and the schoolhouse tax voted by the school township shall not exceed fifteen mills on the dollar. Section 2753.

Special Tax Certified. The secretary of the sub-district meeting shall immediately certify to the secretary of the school township any special tax voted by the electors of the sub-district. Section 2753.

Vote of Sub-District is not Notice. A vote of the electors at a sub-district meeting is not legal notice that such proposition will come before the electors at the school township meeting as contemplated in Sections 2746, 2749 and 2755.

COUNTY SUPERINTENDENT'S CONVENTIONS SPRING OF 1905.

TO THE COUNTY SUPERINTENDENT:

In accordance with Section 2622 of the Code which provides that the superintendent of public instruction may meet the county superintendents at such points in the state as may be most suitable, you are hereby called to meet in convention as follows:

OSKALOOSA, MARCH 30, 2 P. M., MARCH 31, 1:30 P. M.

SIoux CITY, APRIL 20, 2 P. M., APRIL 21, 1:30 P. M.

DES MOINES, APRIL 25, 2 P. M., APRIL 26, 9:30 A. M.

Section 2742 guarantees to you the expenses incurred in attendance upon one of these meetings. It is expected that you will be present and take an active part, unless for some good reason you are prevented from attending.

JOHN F. RIGGS,
Superintendent Public Instruction.

SUGGESTIVE SUBJECTS FOR DISCUSSION.

1. High Schools as Teachers' Training Schools.
2. School Visitation or Office Supervision, Which?
3. The teaching of:
 - (a) Domestic Science in Rural Schools.
 - (b) Agriculture in Rural Schools.

4. How Interest Teachers in Professional Reading.
5. State Certification of Teachers.
6. School Officers' Meetings.
7. How may the Superintendent Render Greatest Benefit to His Schools.
8. The Library.
9. Reports.
10. Consolidation of Schools.
11. Problems of the Institute.
12. The Pupils' Reading Circle.

CONCERNING THE READING CIRCLE.

TO THE COUNTY SUPERINTENDENT:

We are sending you a supply of the Teachers' Reading Circle circulars for distribution among your teachers. We ask that you hand a copy to each of your teachers, and we earnestly advise that you call their attention pointedly to this course, and urge the necessity of an advanced course of reading, particularly along professional lines.

We also wish to urge that you keep a permanent record in your office of those teachers who take up the Reading Circle work, and that you give credit upon this record from time to time of the work done and also upon the reverse side of the enrollment slip, which is to be then returned to the teacher. The teachers should know that such a permanent record is to be kept in your office.

Very truly yours,

JOHN F. RIGGS,

Supt. Public Instruction and

Chairman Reading Circle Board.

June 3, 1905.

CIRCULARS TO SCHOOL OFFICERS.

TO THE DIRECTOR OF THE SUB-DISTRICT:

Your attention is called pointedly to the following provisions of law:

"Each director shall, between the first and tenth days of September in each year, prepare a list of the heads of families in his sub-district, the number and sex of all children of school age, and by the fifteenth day of said month report this list to the secretary of the school township, who shall make full report thereof."

It is of great importance that the count be carefully made and that your report of the "number and sex of all children of school age" be absolutely correct.

In making the list of children of school age, you will include every person in the sub-district who, on the first day of September, 1905, has reached the fifth and not passed the twenty-first birthday. To be complete your list must include all persons of the stipulated ages, even if married or temporarily absent to attend school or engage in work. A child in one of the charitable or reformatory institutions must be enumerated in the district where his parents reside.

When your report is completed it should be filed at once with the secretary of the school township that he may have time in which to complete his report before the annual meeting of the board on the third Monday of September. The filing of this report with the secretary cannot be delayed under the law beyond the fifteenth day of September.

Respectfully,

JOHN F. RIGGS,

August 14, 1905.

Superintendent Public Instruction.

TO THE SECRETARY:

Your attention is called pointedly to the following:

"He (the secretary) shall, between the first day of September and the third Monday of September of each year enter in the book made for that purpose the name, sex and age of every person between five and twenty-one residing in the corporation, together with the name of the parent or guardian." Section 2764.

In making the list of persons between the ages of five and twenty-one you will include every person in the school corporation who on the first day of September, 1905, has reached the fifth and not passed the twenty-first birthday. To be complete, your list must include all persons of the stipulated ages, even if married or temporarily absent to attend school or engage in work. A child in one of the charitable or reformatory institutions must be enumerated in the district where his parents reside.

In school townships each director is required by law to report to you for his sub-district on or before the 15th day of September. Call the attention of directors to this early, and urge accuracy and promptness in their reports.

Your annual report should be completed and copied into one of the blanks before the board meets on the 18th day of September. As soon as the report is approved by the board, carefully fill out the second blank and send it at once to the county superintendent. You will find on the blanks full and complete directions for making your report.

The purchase of books for school libraries under Chapter 110 of the School Laws must be made "between the third Monday of September and

REPORT OF THE

the first day of December in each year." The provisions of this law are mandatory in school townships and rural independent districts. The purchase of books is to be made "by the president and secretary of the board, with the assistance of the county superintendent of schools."

Respectfully,

JOHN F. RIGGS,

August 14, 1905

Superintendent Public Instruction.

TO THE TREASURER:

To avoid delay and errors in the matter of making and filing your annual report, I wish to urge that you strictly observe the following:

1. Your financial report should be completed and copied in one of the blanks before the meeting of the board on the 18th day of September.

2. As soon as the board has settled with you, copy the report on the other blank, comparing item by item, and forward at once to the county superintendent.

3. Overdrafts are not recognized or permitted by the law, section 2768 expressly providing that "whenever an order cannot be paid in full out of the fund upon which it is drawn, partial payment may be made." It further provides that the unpaid portion shall draw interest.

If, however, you have permitted any fund to be overdrawn, you must report the amount of the overdraft under the head: "Received From Other Sources," or "Paid For Other Purposes," as the case may require. If the overdraft is of this year, it must be reported as "Received From Other Sources." If it is an overdraft carried over from last year, it must be reported as "Paid For Other Purposes."

4. Complete directions for preparing your report will be found on the blanks sent you.

5. Section 1, Chapter 110 of the School Laws, provides as follows:

"The treasurer of each school township and each rural independent district in this state shall withhold annually from the money received from the apportionment for the several school districts not less than five nor more than fifteen cents, as may be ordered by the board, for each person of school age residing in each school corporation, as shown by the annual report of the secretary, for the purchase of books, as hereinafter provided."

In the case of State of Iowa by N. Willett, County Attorney, v. O. T. Lommen, Treasurer of Rural Independent District No. 5, Military Township, Winneshiek County, May term of District Court, 1904, and in the case of State of Iowa v. Rural Independent District No. 3, Eden Township, Benton County, December term of District Court, 1904, this law is held to be mandatory.

Respectfully,

JOHN F. RIGGS,

August 14, 1905.

Superintendent Public Instruction.

TO THE PRESIDENT:

The board of directors must meet on the third Monday of September to receive the annual reports of the secretary and treasurer, and to settle with these officers.

In all school corporations a secretary for the ensuing year must be chosen at this meeting. And in all school corporations, except in independent city or town districts, a treasurer for the ensuing year must be chosen at this meeting. Record of settlement and the amount of funds on hand should be endorsed on the bond of the new treasurer.

THE SECRETARY AND TREASURER SHOULD HAVE THEIR REPORTS READY FOR THE APPROVAL OF THE BOARD AT THE TIME OF THE MEETING.

If for any cause the business cannot be completed, adjournment may be had; but this should in no event extend beyond five days, since the law requires that the secretary file his report with the county superintendent "within five days after the third Monday of September," and this report and that of the treasurer cannot be filed until approved by the board.

Your attention is called to the mandatory provisions of Chapter 110 of the School Laws, which require the treasurer of each school township and rural independent district to withhold five cents for each person of school age in the school corporation, the same to be used between the third Monday of September and the first day of December for the purchase of library books. The board may, at its option, increase this amount not to exceed fifteen cents for each person of school age. The books must be purchased by the secretary and president of the board, with the assistance of county superintendent of schools.

In the case of State of Iowa by N. Willett, County Attorney, v. O. T. Lommen, Treasurer of Rural Independent District No. 5, Military Township, Winneshiek County, May term of the District Court, 1904, and in the case of State of Iowa v. Rural Independent District No. 3, Eden Township, Benton County, December term of District Court, 1904, this law is held to be mandatory.

Respectfully,

JOHN F. RIGGS,

August 14, 1905.

Superintendent Public Instruction.

OPINION OF ATTORNEY-GENERAL.
CONCERNING THE COUNTY SCHOOL TAX.

STATE OF IOWA,

Office of Attorney-General.

Sir:—In compliance with your request for an opinion whether the tax levied for the support of schools within the county upon all of the taxable property therein may legally be used by the board of supervisors in the purchase of supplies for county superintendents, I submit the following:

Section 2807 provides:

"The board of supervisors shall at the time of levying taxes for county purposes, levy the taxes necessary to raise the various funds authorized by law and certified to it under this chapter; but if the amount certified for any such fund is in excess of the amount authorized by law, it shall levy only so much thereof as is authorized by law. * * * * It shall also levy a tax for the support of the schools within the county of not less than one or more than three mills on the dollar on the assessed value of all the taxable property within the county."

Section 2808 provides:

"The county auditor shall, on the first Monday in April and the fourth Monday in September of each year, apportion the school tax together with the interest upon the permanent school fund to which the county is entitled, and all other money in the hands of the county treasurer belonging in common to the schools of the county and not included in any previous apportionment, among the several corporations therein in proportion to the number of persons of school age, as shown by the report of the county superintendent filed with him for the year immediately preceding * * * *"

Under the provisions of Section 2808 the school tax levied upon all of the taxable property in the county under the provisions of the preceding section must be apportioned, with the interest upon the permanent school fund and all other money set apart for the support of the public schools, and distributed to the school corporations of the county in proportion to the number of persons of school age in each school district.

Section 468 of the Code provides:

"The board of supervisors shall furnish the clerk of the district court, sheriff, recorder, treasurer, auditor, county attorney and county superintendent with offices at the county seat, together with fuel, lights, blanks, books and stationery necessary and proper to enable them to discharge the duties of their respective offices. * * *"

Section 2742 of the Code provides:

"He (the county superintendent) shall receive a salary of twelve hundred and fifty dollars a year and the expenses of necessary office stationery and postage, and those incurred in attendance upon meetings called by the superintendent of public instruction; claims therefor to be made by verified statements filed with the county auditor, who shall draw his warrent upon the county treasurer therefor. * * *"

The board of supervisors of the county is required by section 468 to furnish the county superintendent with fuel, lights, blanks, books, stationery and office supplies necessary to enable him to properly discharge the duties of his office. Such supplies must be furnished in the same manner as they are furnished to other county officers, and paid for from the funds of the county.

Under the provisions of section 2742 the claims of the county superintendent for postage, etc., must be verified, filed with the county auditor and paid for by a warrant drawn by the auditor upon the county treasurer.

The statute nowhere authorizes the appropriation or use of any part of the county school tax for the purpose of purchasing supplies for the county superintendent. The entire amount of such tax must be apportioned to the school corporations of the county, and the board of supervisors should furnish all supplies necessary to enable the county superintendent to discharge the duties of his office and pay for the same from the funds of the county.

Respectfully submitted,

August 3, 1905.

HON. JOHN F. RIGGS,

Superintendent of Public Instruction.

CHAS. W. MULLAN,

Attorney-General of Iowa.

SELECTIONS.

*From Special Day Manual
For 1905.*

Flag Day.....	February 22
Arbor Day	April 28
Memorial Day.....	May 30
Thanksgiving.....	November 30
Christmas.....	December 25

FLAG DAY, 1905.

**February 22, Flag Day,
Also
Commemorating the Birthdays
of
George Washington, February 22,
and
Abraham Lincoln, February 12.**

The Old Flag is to our institutions what the Cross is to the Christian Religion.—Col. W. P. Hepburn.

The American Flag means all that is good and true and pure and beautiful in a land of freedom.

SALUTE TO THE FLAG.

We give our heads and our hearts to our country.

One country, one language, one flag.

The color-bearer displays the flag on the platform or at the teacher's desk. The children may be drilled by signals, thus using the right hand:

1. Make ready.
2. School rises as one.
3. Right arm extended, hand pointing to the flag.
4. Forehead touched with tips of the fingers, repeating the words, "We give our heads."
5. Hand placed over the heart, repeating, "And our hearts."
6. Hand dropped to the side, repeating, "To our country."
7. Standing erect, repeating, "One country."
8. Still standing, repeating, "One language."
9. Right foot advanced and arm extended, hand pointing to the flag, repeating, with emphasis, "One flag."
10. Arm dropped and seats resumed.

—From Primary Education.

O'ER THE SCHOOLHOUSE FLOATS THE FLAG.

Raise the flag on every schoolhouse, let it float upon the breeze;
Sing our famed "Star Spangled Banner" as it towers among the trees.
Tell the children all its story on the land and on the sea—
Tell its pet names, first "Old Glory," then "The Banner of the Free;"
Tell them how its blood reminds us of the blood of heroes shed—
That we might dwell in freedom's land, when they were with the dead.

Tell the children that its symbol is a state for every star,
Tell of its victorious record in the days of strife and war;
Tell them it is theirs to cherish, that its stars must never set,
And in future they'll defend it—wheresoe'er a foe is met;
Keep the flag and school united, North and South and East and West,
Cheer for loyalty and learning in the land we love the best.

—Adapted from Werner's Magazine.

THE STARS AND STRIPES.

The history of our country is grandly illustrated in our Stars and Stripes. New stars have been added to its field of blue as new states have been admitted into our Union. It had its origin in the era of

Washington, when our republic was established, and it had its greatest trial in the epoch of Lincoln, when the mightiest civil war of the world tested its power and vindicated its supreme control and command over the discordant elements arrayed in deadly and brave attempt to destroy it. Today this flag stands for no one party or section, but floats over the whole country, one and undivided, without sectional hates, united in the bonds of universal liberty and in the sentiments of an inspiring American civilization. It is the proud sign of peace among ourselves and with all the world.—Albert D. Shaw.

THE FLAG OF THE FREE.

The flag floats east, the flag floats west;
 The skies unveil their glory;
 Each stripe reflects the loving light,
 Star tells to star its story.
 From sea to sea, in calm or storm,
 Shine on, O Flag, in beauty
 For all who walk in freedom's ways,
 For all who died for duty.

—George T. Packard.

HONOR THE FLAG.

O blessed land! where Freedom's sun
 A long unclouded course hath run,
 Where Liberty's inspiring song
 Is chorused by a happy throng;
 Thy children are surnamed the brave,
 Their thoughts outrun thy flag to save—
 As rivers leap to ocean wave.

—Addie B. Billington.

BANNER OF BEAUTY AND GLORY.

As I made an extended tour of the states, nothing so impressed and so refreshed me as the universal display of this banner of beauty and glory. It waved over the schoolhouses; it was in the hands of the school children. * * Two years ago I saw a sight that has ever been present in my memory. As we were going out of the harbor of Newport, about midnight on a dark night, some of the officers of the torpedo

station had prepared for us a beautiful surprise. The flag at the depot station was unseen in the darkness of the night, when suddenly electric search lights were turned on it, bathing it in a flood of light. All below the flag was hidden, and it seemed to have no touch with earth, but to hang from the battlements of heaven. It was as if heaven was approving the human liberty and human equality typified by that flag.—Benjamin Harrison.

WASHINGTON.*

(Tune: "Maryland, My Maryland.")

What is this name we hold so dear?
 Washington, 'tis Washington.
 Whom do we honor and revere?
 Washington, our Washington.
 Though o'er his head we drop a tear,
 Yet death for him ne'er held a fear;
 His name shall brighter grow each year,
 Washington, great Washington.

*(Connect this with some marching or flag exercise, and with the picture of Washington.)

LINCOLN.*

(Tune: Hold the Fort.)

Now for him who saved our country
 Let our banners wave,
 Honor him, the hero lying
 In his lowly grave.
 And the children of the nation,
 May they keep for aye,
 Just as now we all are keeping
 Sacred his birthday.

*(Unite with flag exercise.)

SHORT ORATIONS.

If ever the face of man writing solemn words glowed with holy joy, it must have been the face of Abraham Lincoln as he bent over the Emancipation Proclamation. Here was an act in which his whole soul could rejoice, an act that crowned his life. All the past, the free boy-

hood in the woods, the free youth upon the farm, the free manhood in the honorable citizen's employment—all his freedom gathered and completed in this. And is it any wonder that among the swarthy multitudes, ragged, and tired, and hungry, and ignorant, but free forever from anything but the memorial scars of the fetters and the whips,—is it any wonder there grew up in camps and hovels a superstition which saw in Lincoln the image of one who was more than man, and whom with one voice they loved to call "Father Abraham?"—Phillips Brooks.

The nation's debt to these men (Washington and Lincoln) is not confined to what it owes them for its material well-being, incalculable though this debt is. Beyond the fact that we are an independent and united people, with half a continent as our heritage, lies the fact that every American is richer by the noble deeds and noble words of Washington and Lincoln. Each of us who reads the Gettysburg speech or the second inaugural address of the greatest American of the nineteenth century, or who studies the long campaigns and lofty statesmanship of that other American who was even greater, cannot but feel within him that lift toward things higher and nobler which can never be bestowed by the enjoyment of mere material prosperity.—Theodore Roosevelt.

WASHINGTON.

Just honor to Washington can only be rendered by observing his precepts and imitating his example. He has built his own monument.

BE LIKE WASHINGTON.

We cannot all be Washingtons,
 And have our birthday celebrated;
 But we can love the things he loved,
 And we can hate the things he hated.

He loved the truth, he hated lies,
 He minded what his mother taught him,
 And every day he tried to do
 The simple duties that it brought him.

WHICH GENERAL.

Sometimes Mamma calls me "general;"
 I wish I knew which one;
 But I always try to tell the truth,
 So I hope it's Washington.

But when I tell my papa that,
He laughs loud as he can,
And says if she calls me "general,"
She must mean Sheridan;

Because when Mamma wants me,
And I am out at play,
I nearly always seem to be—
'Bout "twenty miles away."—Kate W. Hamilton.

A YOUNG PATRIOT.

I'm just a very little boy,
I never fired a gun;
I never led an army,
Like brave George Washington.
And though like him I may not fight
To set a people free,
I'll try to be as brave and true,
As kind and good as he.—Alice Jean Cleator.

LITTLE MARTHA WASHINGTON.

Recitation and Dance for six little girls:

This lady, Martha Washington,¹
Was once a little girl,
With dimpled cheeks² and blushes
And golden hair³ in curl.
She never had a hatchet⁴
She never cut a tree,⁴
But was full of fun and frolic,⁵
Just a little girl like me.⁶
Wore a puckered satin petticoat⁷
Breast knots, gay and dainty caps,⁸
Dropped a courtsey to her mamma,⁹
Courtesied deep to Lord Fairfax,¹⁰
Then she grew up like a flower,¹¹
Pure and sweet and good;¹² and yet
Of all things that pleased her fancy
She loved best the minuet.¹³

1. Point to picture of Martha Washington.
2. Put hands on cheek.

3. Put hands on hair.
4. Shake head.
5. Swing arms at side.
6. Point to self.
7. Hands sweeping down dress front.
8. Hand on head.
9. Courtsey left.
10. Courtsey right.
11. Standing as tall as possible.
12. Hands folded on chest.
13. Take hold of dress near bottom and drop a deep courtesy. Music 3-4 time begins. Girls separate into three couples, forming a line across platform, a little space between each couple. Partners take hold of hands and hold hands very high.

Beginning with the right foot walk six steps forward (closing left foot up to right, in first position for sixth count). Point toe and lift several inches from floor.

Courtesy front (six counts.)

Turn and walk back (six counts.)

Courtesy to partners.

Each walks past partner (six counts.)

Courtesy front.

Turn and walk back to partner.

Courtesy to partner.

Partners cross hands and walk obliquely left (six counts.)

Courtesy front.

Turn, cross hands and walk back to position.

Courtesy to partners.

Repeat, walking right.

Partners give right hand and turn half round.

Courtesy to partner.

Give left hand back to place.

Courtesy to partner.

Courtesy front.

WASHINGTON AND LINCOLN.

No countries have the heroes
 So loyal, good and great,
 As Washington and Lincoln,
 Whose deeds we celebrate.

We celebrate each year with love
 Their birthdays far and near;
 Our flags and banners wave on high,
 For honored names so dear.

(To be recited by small boys, each carrying a flag which he waves in direction of pictures or busts of Washington and Lincoln.)

ABRAHAM LINCOLN.

'Mid the names that fate has written
On the deathless scroll of fame,
We behold the name of Lincoln,
Shining like a living flame.

When the storm of peril threatened
His loved land to overwhelm,
Safe the ship of state he guided,
With his hand upon the helm.

Statesman, ruler, hero, martyr--
Fitting names for him, alway;
Wherefore, let us all, as brothers,
Love his memory today.

—Susan M. Best.

MOTTOES.

Above all, we must stand shoulder to shoulder for the honor and the greatness of our country.—Theodore Roosevelt.

We are a Republic whereof one man is as good as another before the law. Under such a form of government it is of the greatest importance that all should be possessed of education and intelligence.—Ulysses S. Grant.

Let all the ends thou aim'st at be thy Country's,
Thy God's and Truth's.

—William Shakespeare.

One flag, one land, one heart, one hand,
One nation evermore

—Oliver Wendell Holmes.

USES OF THE FOREST.

About sixty per cent of all our railroad ties are made of white oak; nearly twenty per cent are pine. Since every mile of railway needs about twenty-five hundred ties, and there are over two hundred thousand miles of such roads in our country, it takes millions of acres of

timber to supply a single set of ties. Such a set has to be replaced about every seven years. Thus it is that the railways rank among the greatest consumers of wood in the country.

Our telegraph and telephone poles are made largely from hemlock and cedar. The price paid for such timber varies from two to ten dollars per pole.

Flour barrels are made largely from elm. Barrels for liquids from a fine grade of white oak; also ash and elm.

Our furniture is made from walnut, ash, oak, maple, and other hard woods.

White oak and hickory are used in manufacture of wagon and buggy wheels.

Soft woods, as poplar, aspen, spruce, pine and basswood, are used in the manufacture of paper such as is used in newspapers, note books, etc.

Three-fourths of our lumber is made from soft woods, such as white pine, spruce, hemlock and redwood.

The woodwork of machinery is made from hard wood lumber, which constitutes about one-fourth of our lumber output. It comes principally from the wide region east of the Mississippi, between the northern and southern soft wood belts.

The great pineries of Wisconsin, Minnesota and Michigan supply our white pine, the most useful timber in the north temperate zone, because it is in greatest demand for building purposes.

The bark of the hemlock tree is used in the tanning of leather.

Corks are made from the bark of the cork oak, which grows only in Mediterranean countries and Portugal.

As a national industry, forestry stands second only to agriculture in number of people and amount of capital employed and in value of product.

It has been estimated that we have five hundred million acres of growing forest and that thirty-five cubic feet of wood are produced annually per acre.

SUGGESTIVE OUTLINE FOR NATURE STUDY.

BY ETTA M. BARDWELL.

SUGGESTIONS FOR STUDY OF TREES.

Select some tree near the school building for observation. Study the tree as a whole first.

a. Sketch, noting the following points: Angle which branches make with trunk; comparative length of branches on north and south

sides; ending of main branches, whether abrupt or breaking up into spray-like twigs; comparative height and width of top.

b. Study preparations made by this particular tree for winter: shedding of leaves, withdrawal of material into stems and roots, protection of buds.

c. Sketch twig of not less than two years' growth, noting the following points: shape of bud, position, leaf scar, scale scar, growth of 1903, of 1902. (Drawing is especially valuable in connection with this work, as it leads to more careful observation. A sketch is one way of answering a question.)

d. Have pupils measure growth of three twigs on north side of tree during 1903; three on south side same year. Compare. How account for difference? Where are greater number of buds to be found, on upper or under side of twig? Why? Effect on remaining buds when some are broken off. Why are shade trees pruned? When a limb has been broken off, how does nature attempt to heal the wound? Examine stubs of broken-off limbs and learn how the healing is accomplished. Would the remains of the limb be distinguishable if the tree were cut open? Split a branched twig an inch in diameter and decide what causes a knot in lumber. Differences in shape of knots.

e. Study longitudinal section of piece of stove-wood and identify hard-wood and sap-wood. Call attention to the so-called "annual rings." Why are they of varying thickness in different years? Why not of uniform thickness on all sides of tree? Examine pine lumber and articles made from pine (connect this with the study of lumber industry in geography work).

f. Bring in twigs of trees and keep in water. Watch unfolding of the buds. What becomes of the winter scales?

TREES IN SPRING.

Note trees that flower before the leaves appear. Color of the flowers? What part of the flower of the box-elder forms the seed? Do insects visit flowers of trees?

Which trees "leaf out" first? Which are in full leaf first?

BIRD STUDY.

One object to be attained by this study is the awakening of an interest in bird life which will lead eventually to the better protection of our birds. Discourage all bird or egg collection.

Endeavor to awaken in the children a genuine interest in what the bird is doing. May and June are the nest-building months for most of our birds. If each child could watch the progress of the building of a single nest, his future interest in bird life would be assured. Bring in some last year's nests and study their formation. Of what are they made? How are the outside materials fastened together? How lined? Purpose of the lining? Have children collect materials for the making of nests and let them try fashioning a nest, lining it with the same materials that the bird used. In doing this a close examination of some nests will be necessary. While constructing the nest, direct children's attention to how the bird must carry his materials. Whether he carries more than one straw or stick at a time and the number of times he must journey back and forth to gather the materials. Does he stay in his nest at night? When does he sleep? How long it takes the bird to build the nest. The place he selects for it. How he begins it. Look for some suitable place for nest—fork of tree or low bush. How does bird shape nest? Study nest of gold-finch, robin. Compare nest of Baltimore oriole with others, in material used and position on tree. How does the oriole plan to keep eggs from falling out of nest? Where does he get his material? Look for horse hairs—show weaving of hairs in and out. Manner of attachment to limb. How lined?

BIRD DAY.

In July, 1896, the United States Department of Agriculture issued a circular suggesting that a "Bird Day," to be devoted to instructing the children in the value of our native birds, and the best means of protecting them, be added to the school calendar.

This circular contains a most valuable letter from J. Sterling Morton, on the establishment of "Bird Day" throughout the country. He says: "The cause of bird protection is one that appeals to the best side of our natures. Let us yield to the appeal. Let us have a Bird Day—a day set apart from all other days in the year to tell the children about the birds. But we must not stop here. We should strive continually to develop and intensify the sentiment of bird protection, not alone for the sake of preserving the birds, but for the development of the finer instincts of the child mind."

Superintendent Babcock of Oil City, Pa., originated "Bird Day," and first celebrated it in his school in 1895.

The discussion of what was at that time a novel idea spread to the West, and in 1896 we find Fort Madison, Iowa, celebrating "Bird Day" in a most enthusiastic manner. Professor Bruner, of Nebraska, urged its recognition by the schools of that state the same year.

Since that time the observance of the day has become quite general throughout our Western states. The movement has the most hearty support of the Audubon societies of the various states, as they realize the need of just such work as is accomplished by "Bird Day" work.

The preservation of the birds is not merely a matter of sentiment, or of education in kindness to all living things. It has a utilitarian side of vast extent. The birds are necessary to us. Only by their means can the insects which injure, and if not checked, destroy vegetation, be kept in bounds.

What is most needed is knowledge of the birds themselves, their modes of life, their curious ways, and their relation to the scheme of things. To know a bird is to love him.

Send your boy to the woods to study the patience, the ingenuity, and the industry of birds. Let him learn to distinguish the song of one kind from that of another. Arouse his curiosity as to their habits and give him that innocent delight that the study of nature is sure to bring into his life. Teach him that it

is cowardly to torture helpless birds. Take away the air-gun and insist that the coming generation shall realize the sin of cruelty to God's helpless ones.

Teach your child to love the fields and the woods, the flowers and the birds and you have added to his capacity for happiness a thousandfold.

IOWA STATUTES FOR PROTECTION OF BIRDS.

Section 2561. No person shall destroy the nests or eggs of, or catch, take, kill, or have in possession or under control for any purpose whatever, except specimens for use of taxidermists, at any time, any whip-poor-will, night hawk, bluebird, finch thrush, linnet, lark, wren, martin, swallow, bobolink, robin, turtle dove, catbird, sandpiper, snowbird, black-bird, or any other harmless bird, except blue jay and English sparrow; but nothing herein shall be construed to prevent the removal of nests from buildings, and the keeping of songbirds in cages as domestic pets.

Any person violating any of the provisions of this section shall be fined not less than \$1 nor more than \$25 and costs of prosecution, and may be committed to county jail until such fine and costs be paid.

WHY.

Said the boy to the bird,
 "Now, do pray stop,
 And tell me at once
 Why you go with a hop.
 Why do you not walk like the goose and the hen,
 And not hop on two feet, like a robin and wren"
 Said the bird to the boy,
 "That is easily told,
 In a very few words,
 If I may make bold,
 And tell you the secret why some birds can walk,
 And maybe at some time, how some birds can talk.
 Every bird that can wade in the water can walk,
 Every bird that can scratch in the dirt can walk,
 Every bird that has claws to catch prey can walk,
 One foot at a time, like the hen and the hawk.
 But most little birds who can sing a song
 Are so small their legs are not very strong,
 To wade with, or scratch with, or catch things; that's why
 They hop with both feet. Little boy, good-by."

—From New Era First Reader, Eaton & Co., Publishers.

MEMORIAL DAY.

Time only enhances the lasting value and demonstrates anew the true significance of these inspiring observances.

Whatever may be the character of its temporary problems, this liberty-loving nation is not and never can be forgetful of the immortal heroes of the Civil War.

The debt of gratitude which we owe to the Nation's defenders can never be repaid, either by this or future generations; yet the acknowledged gift of the obligation each year, in various forms and in a multitude of places throughout this broad land purifies our ideas and brings us all together in sympathy of sentiment and unity of purpose.

Generations come and go the issues for which they fought and died soon pass into history. But the principles of undertaking, worthily accomplished for an unselfish purpose, abide forever and guide us to a nobler destiny and still greater achievements as a nation.

WILLIAM MCKINLEY.

THE FIRST MEMORIAL DAY PROCLAMATION.

(Extract from the G. A. R. Commander in Chief's Order, May 5, 1868.)

We should guard their graves with sacred vigilance. All that the consecrated wealth and taste of the nation can add to their adornment and security is but a fitting tribute to the memory of her slain defenders.

Let no wanton foot tread rudely on such hallowed grounds; let pleasant paths invite the coming and going of revered visitors and fond mourners; let no vandalism of avarice or neglect, no ravages of time, testify to the present or to the coming generations, that we have forgotten as a people the cost of a free and undivided republic.

If other eyes grow dull and other hands slack and other hearts cold in the solemn trust, ours shall keep it well as long as the light and warmth of life remain to us.

Let us, then, gather round their sacred remains and garland the passionless mounds above them with the choicest flowers of springtime; let us raise above them the dear old flag they saved from dishonor; let us in this solemn presence renew our pledges to aid and assist those whom they have left among us as a sacred charge upon a nation's gratitude—the soldier's and sailor's widow and orphan.

—JOHN A. LOGAN.

THE FLAG GOES BY.

Hats off!

Along the street there comes
A blare of bugles, a ruffle of drums,
A flash of color beneath the sky.

Hats off!

The flag is passing by.
Blue and crimson and white it shines
Over the steel-tipped ordered lines.

Hats off!

The colors before us fly
But more than the flag is passing by.

Hats off!

Along the street there comes
A blare of bugles, a ruffle of drums,
And loyal hearts are beating high.

Hats off!

The flag is passing by.

H. H. Bennett in *Teachers' World*.

AN ANTHEM FOR ARBOR DAY.

(Tune—"America.")

Joy for the sturdy trees!
Fanned by each fragrant breeze,
Lovely they stand!
The song-birds o'er them trill,
They shade each tinkling rill,
They crowd each swelling hill,
Lowly or grand.

Plant them by stream and way,
Plant where the children play,
And toilers rest,
In every verdant vale,
On every sunny swale,
Whether to grow or fail—
God knoweth best.

Select the strong, the fair,
Plant them with earnest care—
No toil is vain.
Plant in a fitter place,
Where, like a lovely face,
Let in some sweeter grace,
Change may prove gain.

God will His blessings send—
And all things on Him depend.
His loving care
Clings to each leaf and flower
Like ivy to its tower.
His presence and His power
Are everywhere.

—Samuel F. Smith in Wisconsin Annual.

FOR MEMORIAL DAY.

THE BATTLE FLAG.

Battered and torn with a hundred shots,
The flag came home.
Brilliant and spotless it went to the fray,
Borne at the front of the ranks that day
When, proud and eager, they marched away;
Some rest in their graves in alien plots—
But the flag came home!

Hear it aloft for the world to see,
The honored flag.
It is dearer today than when, fair and new,
It waved in the sun—red, white and blue;
It is riddled with bullets through and through,
But, oh it was in at the victory,
Though a tattered rag.

Place it away where its fellows stand,
 'Neath lofty dome.
 It has served its mission and won its fame,
 And helped to honor unity's name,
 And with cheers and music and glad acclaim
 The people hailed it on every hand,
 When the flag came home.

—Lillian Grey.

CHRISTMAS.

*This happy day, whose risen sun
 Shall set not through eternity,
 This holy day when Christ, the Lord,
 Took on Him our humanity,
 For little children everywhere
 A joyous season still we make;
 We bring our precious gifts to them,
 Even for the dear child Jesus' sake.*

—Phoebe Cary.

CHRISTMAS PRAYER.

God bless us every one, this day, with the blessing of Jesus.
 By remembering our kinship with all men,
 By well-wishing, friendly speaking and kindly doing
 God help us every one to spread abroad the blessing of Jesus:
 In whose name we keep Christmas:
 And in whose words we Thy children pray together:
 Our father which art in Heaven, hallowed by thy name

—Adapted from Henry Van Dyke.

ON CHRISTMAS NIGHT.

The stars that shine on Christmas night
 Beyond all other stars are bright.
 And all night long with solemn voice
 They cry again: Rejoice! Rejoice!
 And lo, our love turns deep and wide
 Toward all mankind at Christmastide.
 Rejoice, rejoice this Christmas morn
 For in our hearts the Christ is born.

—Elizabeth Carter.

THE STAR IN THE EAST.

O, a new star, a new star
Blazed like a lamp of gold,
For closely pressed to Mary's breast
The Savior Jesus lay at rest,
As prophets had foretold.

O, the night wind, the night wind
A new song found to sing,
Caught from the gleaming angel choir,
With harps of light and tongues of fire,
To praise the new-born King.

O, the worship, the worship
And myrrh and incense sweet,
Which shepherd kings from far away
Had brought with golden gifts to lay
At the Savior Jesus' feet.

O, the shadow, the shadow
Of the cross upon the hill,
But yet the babe, who was to bear
The whole world's weight of sin and care,
On Mary's heart lay still.

Virginia Eloren Harrison.

THE FIRST CHRISTMAS EVE.

It was midnight on the hilltop, and the fire was dim and low,
While the weary shepherds slumbered round the embers' dying glow,
When a light shone round about them, brighter far than light of day,
And they saw an angel standing in its pure and living ray,
He was dressed in white apparel and his face was gravely sweet,
And he spake unto them gently as they bowed them at his feet.
"Fear ye not," for they were troubled; "news of peace and joy I bring;
For tonight in David's city Christ is born, your Lord and King."
As he spoke, adown the heavens, borne as on the ocean's swell,
Angel forms came floating nearer, angel voices rose and fell;
"Unto God the highest glory. Peace on earth. To men good will,"
Pealed the anthem, that triumphant echoes down the ages still.
As the angel vision vanished and the song grew faint and far,
Clear and radiant in the heavens steadfast shone the guiding star;
Then they travelled on and onward till they reached the lonely shed
Where the King of all the nations in a manger laid his head,
And the night was hushed and holy, while the star shone over them,

And the angel song rang softly, "Christ is born in Bethlehem!"
 Nineteen hundred years have fled since the shepherds heard that
 song,
 Since Judea's hills were brightened by the presence of that throng;
 But adown the distant ages, when the Christmas time draws near,
 And our hearths and homes are brightened with the Christmas warmth
 and cheer—
 When our hearts with love grow warmer as the light glows in a gem—
 Softly steals the angel's message, "Christ is born in Bethlehem!"

CHRISTMAS CAROL.

Hail to this happy Christmas morn,
 The day our blessed Lord was born,
 Let every heart its tribute bring,
 To bless this birthday of our King.
 "Peace on earth, to men good will"
 Shall be our daily anthem still,
 Till all the nations of the earth
 Will know our precious Savior's worth.

CHRISTMAS COMES BUT ONCE A YEAR.

What would the world be without Christmas,
 Its joy, its good will and its cheer?
 What would the world be without Christmas,
 Although it comes but once a year?
 What would the world do without Christmas,
 Its gifts and its tokens of love?
 What would the world do without Christmas,
 That makes it like Heaven above?

EVERYWHERE, CHRISTMAS TONIGHT.

Everywhere, everywhere, Christmas tonight!
 Christmas in lands of the fir tree and pine,
 Christmas in lands of the palm tree and vine;
 Christmas where snowpeaks stand solemn and white,
 Christmas where cornfields lie sunny and bright;
 Everywhere, everywhere Christmas tonight!

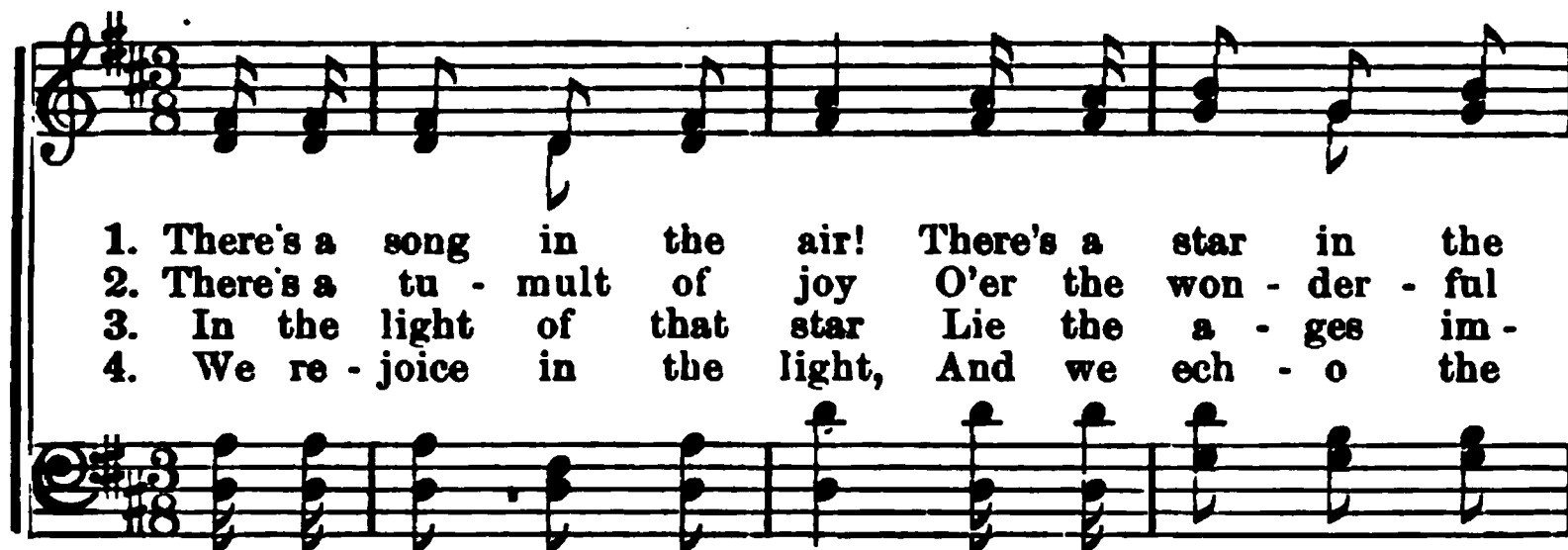
Then let every heart keep its Christmas within,
 Christ's pity for sorrow, Christ's hatred of sin,
 Christ's care for the weakest, Christ's courage for right,
 Christ's dread of the darkness, Christ's love of the light;
 Everywhere, everywhere, Christmas tonight!

—Adapted from Phillips Brooks.

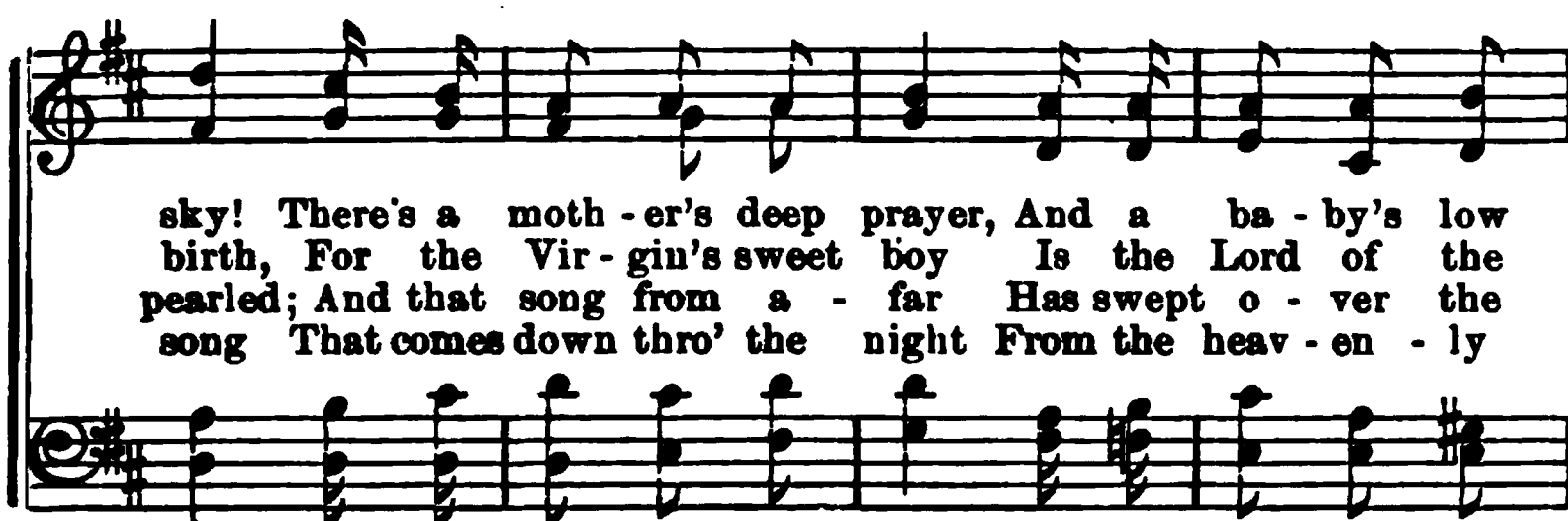
A CHRISTMAS SONG.

Words by
J. G. HOLLAND.

Music by
MARO L. BARTLETT, 1904.



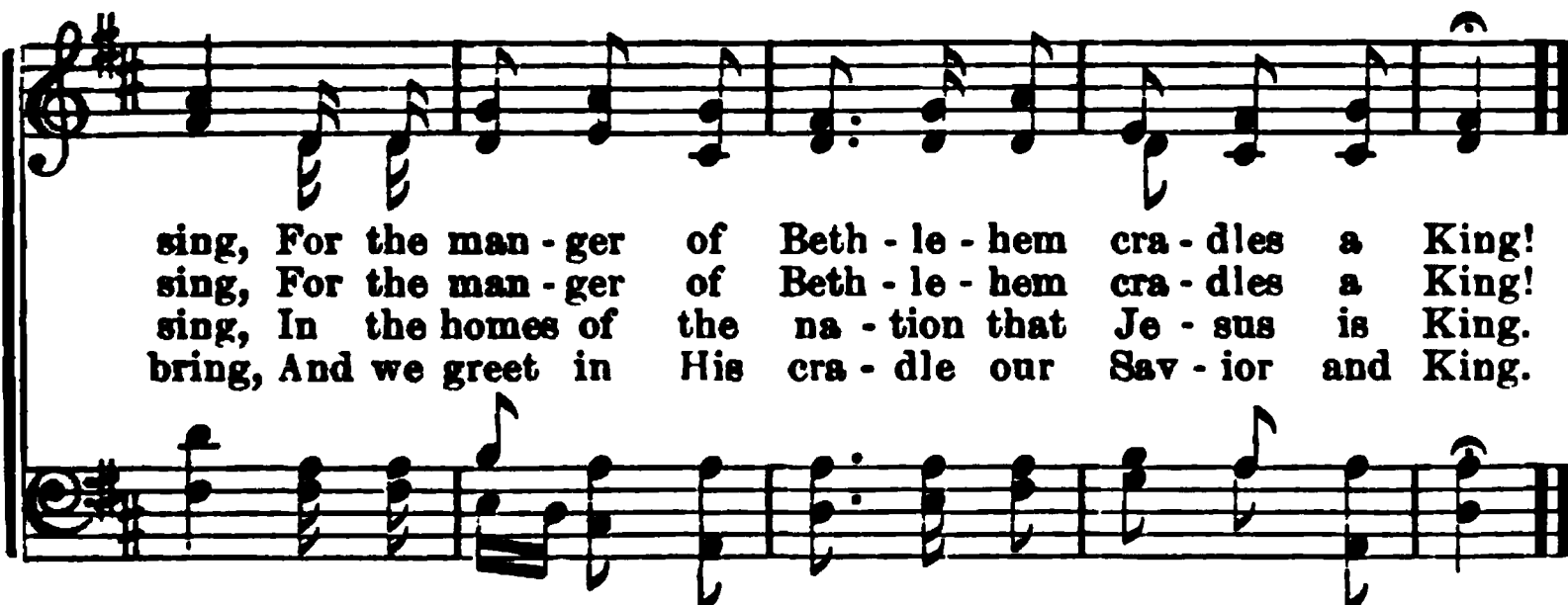
1. There's a song in the air! There's a star in the
2. There's a tu - mult of joy O'er the won - der - ful
3. In the light of that star Lie the a - ges im -
4. We re - joice in the light, And we ech - o the



sky! There's a moth - er's deep prayer, And a ba - by's low
birth, For the Vir - gin's sweet boy Is the Lord of the
pearled; And that song from a - far Has swept o - ver the
song That comes down thro' the night From the heav - en - ly



cry! And the star rains its fire while the beau - ti - ful
earth. Ay! the star rains its fire while the beau - ti - ful
world; Ev - 'ry hearth is a - flame, and the beau - ti - ful
throng; Ay! we shout to the love - ly E - van - gel they



sing, For the man - ger of Beth - le - hem cra - dles a King!
sing, For the man - ger of Beth - le - hem cra - dles a King!
sing, In the homes of the na - tion that Je - sus is King.
bring, And we greet in His cra - dle our Sav - ior and King.

All rights reserved.

From The Progressive Music Course, by Moro Loomis Bartlett. By per-
mission of the W. M. Welch Co., Chicago, Ill.

REPORT OF THE
A CHRISTMAS SERMON.

Bare of head and bare of feet
Christ and Poverty walked the street.

Past the curse and the muck and the grime,
Past the door and the haunt of crime.

Past the glare and the flaunt of sin,
And it was a church that he entered in.

The Christmas prayer at the desk was said,
And the Rich Parishioner bowed his head.

Through the carven oak of the organ loft
The golden music trembled soft,

And a high-priced tenor, sweet of throat.
Poured through the arches his mellow note.

In the velvet reach of each cushioned pew
The pampered worshipers dozed, for they knew

The gifts and bequests that could insure
Their seats in the House of God secure,

"O come all ye faithful!" the Pastor said,
And the Rich Parishioner bowed his head.

Velvet and furs on either side,
Sloth and fatness, vanity, pride—

Then where in the Temple of Prayer was a seat
For the tattered of gown and the bare of feet?

Sat a simple bench by the paneled door,
"Reserved for the Poor" was the sign it bore,

And the Poor Parishioner huddled there—
Small place had he in the Temple of Prayer.

Old and feeble and mendicant,
Yet humble withal and suppliant.

And the son of man as he entered, eyed
The throng that knelt to the prayer of pride.

Then he turned to the suppliant shabby and hoar
And sat in the paupers' bench by the door.

"O come all ye faithful!" the Pastor said,
And Christ and Poverty bowed the head.

—Wallace Irwin.

CHRISTMAS SYMBOLS.

It is said that the entrance of Santa Claus by the chimney rose from the story of Hertha, a goddess of Norse mythology. When her festival was celebrated an altar of stones was erected. Fir branches were piled upon it and set on fire. Through the dense smoke made by the green wood, the goddess was supposed to descend and grant the petitions of her worshippers.

The mistletoe typifies the Trinity—the number three. Its white berries are often found in groups of three and they ripen at the sacred season.

Holly symbolizes the Crown of Thorns, the prickly leaves standing for the thorns, the scarlet berries for the drops of blood.

“Santa Claus is only a simple form and parable of the love which is at the heart of things, which has blessed us all our days.—Emerson.

SANTA CLAUS.

He comes in the night! He comes in the night!
He softly, silently comes;
While the little brown heads on the pillows so white
Are dreaming of bugles and drums.

The little red stockings he silently fills,
Till the stockings will hold no more.
The bright little sleds for the great snow hills
Are quickly set down on the floor.

Old Santa Claus doeth all that he can;
This beautiful mission is his;
Then, children, be good to the little old man,
When you find who the little man is.

PICTURE OF SANTA CLAUS.*

“He was dressed all in fur, from his head to his foot,
And his clothes were all tarnished with ashes and soot.
A bundle of toys was flung on his back,
And he looked like a peddler just opening his pack;
His eyes, how they twinkled! his dimples, how merry;
His cheeks were like roses, his nose like a cherry;
His droll little mouth was drawn up like a bow,
And the beard on his chin was as white as the snow;
The stump of a pipe he held tight in his teeth,
And the smoke it encircled his head like a wreath.

He was chubby and plump, a right jolly old elf,
And I laughed when I saw him in spite of myself.
A wink of his eye, and a twist of his head,
Soon gave me to know I had nothing to dread.
He spoke not a word but went straight to his work,
And filled all his stockings, then turned with a jerk,
And laying his finger aside of his nose,
And giving a nod up the chimney he rose.
He sprang to his sleigh, to his team gave a whistle,
And away they all flew like the down of a thistle;
But I heard him exclaim, ere he drove out of sight,
'Happy Christmas to all, and to all a good-night.' "

*Talk with the pupils about the names that are given to the imaginary being who distributes Christmas cheer, Santa Claus, St. Nicholas, Kriss Kringle; also ask them to describe Christmas customs in different countries.

CHRISTMAS SENTIMENT.

Granted that the spirit of Christmas is only sentiment, what then? What is the strength of patriotism which has such a hold of a man's heart that he springs to his feet at the sound of the national anthem and the tears come into his eyes when he gets the first glimpse of his native country after long years abroad. What is the flag itself? Only a yard of cloth, but men's hearts would break if it were disgraced, and for its honor the bravest men have laid down their lives. Perhaps there is not such a man as Santa Claus, perhaps he does not come down the chimney and stand in the children's room when Christmas day is born, with his long silver beard and his load of gifts. Perhaps he does not go from bed to bed and give the children his blessing. But Santa Claus is truer than we think, for he is only a simple form and parable of the love which is at the heart of things which has blessed us all our days.

Once upon a time a mother was sitting with her children at the table, and it was a poor home, where there was not much to eat, and nothing over for a stranger. As the mother was dividing their portions to the children, and sorrowing in her heart that there was so little to give, a child came to the door, cold and hungry, and begged for bread and shelter. Her kind heart could not refuse the appeal on the child's face, and every one at the table gave a little to the guest. And then the family closed their eyes and bowed their heads to thank God for his mercy, when a voice, tender and beautiful beyond all words, blessed the mother and her children. They opened their eyes and looked, and behold the stranger had departed. Then they knew that the Christ child had come to them as he cometh at Christmas tide to every one who is of a simple and kindly heart.—Ian Maclaren.

TWO VIEWS OF CHRISTMAS.

Nephew—A merry Christmas, uncle! God save you!

Scrooge—Bah! humbug!

Nephew—Christmas a humbug, uncle! You don't mean that, I am sure.

Scrooge—I do. Out upon "Merry Christmas!" If I had my will, every idiot who goes about with "Merry Christmas" on his lips should be boiled with his own pudding, and buried with a stake of holly through his heart. He should!

Nephew—Uncle!

Scrooge—Nephew, keep Christmas time in your own way, and let me keep it in mine.

Nephew—Keep it? But you don't keep it!

Scrooge—Let me leave it alone, then! Much good may it do you! Much good it has ever done you.

Nephew—I am sure I have always thought of Christmas as a good time—a kind, forgiving, charitable, pleasant time; and therefore, uncle, though it has never put a scrap of gold or silver in my pocket, I believe it has done me good, and will do me good; and I say, God bless it!—
Charles Dickens.

THE CHRISTMAS SHEAF.

"Now, good-wife, bring your precious hoard,"

The Norland farmer cried;

"And heap the hearth, and heap the board,

For the blessed Christmas-tide.

"And bid the children fetch," he said,

"The last ripe sheaf of wheat,

And set it on the roof o'erhead,

That the birds may come and eat.

"And this we do for His dear sake,

The Master kind and good,

Who, of the loaves he blest and brake,

Fed all the multitude."

Then Fredrica, and Franz, and Paul,

When they heard their father's words,

Put up the sheaf, and one and all

Seemed merry as the birds.

Till suddenly the maiden cried,

The boys were hushed in fear,

"Dear father, should we give the wheat

To all the birds of the air?"

"For if tomorrow from our store
We drive them not away,
The good little birds will get no more
Than the evil birds of prey."

"Nay, nay, my child," he gravely said,
"You have spoken to your shame,
For the good, good Father overhead,
Feeds all the birds the same."

"He hears the ravens when they cry,
He keeps the fowls of the air;
And a single sparrow cannot lie
On the ground without his care."

—Phoebe Cary.

CHRISTMAS AT NUTCRACKER LODGE.

Mr. and Mrs. Nutcracker were as respectable a pair of squirrels as ever wore grey bushes over their backs and Nutcracker Lodge was a hole in a tree. They had a son named Featherhead, who was a squirrel of some smartness, but he was sulky and contrary, and he always found matter of complaint in everything his father and mother did.

Nobody understood him, he said, he had higher aspirations than could be bounded by that rotten hole in a hollow tree. He could not and would not come down to the contemptible toil of laying up a few hickory-nuts for winter. "Depend upon it, my dear," said Mrs. Nutcracker, "that fellow must be a genius."

"Fiddlesticks on his genius," said old Mr. Nutcracker, "what does he do? He eats enough for any two, and he never helps gather nuts."

The Chipmunks, a branch of the Nutcracker family, were a lively, sociable race, and on the very best of terms with the Nutcracker Grays. Young Tip Chipmunk, the oldest son, was so very active in providing for the family, that old Mr. and Mrs. Chipmunk had very little care, but could sit at the door of their hole and chat with the neighbors, quite sure that Tip would have plenty laid up for winter.

Now, Featherhead looked down upon Tip Chipmunk and said "I hope, mother, you won't invite the Chipmunks at Christmas, these family dinners are such a bore. There are our cousins the high-fliers, if we could get them there would be some sense in it."

When Mrs. Nutcracker repeated this to old Nutcracker he said: "I wish good, industrious sons like Tip Chipmunk were common. For my part I find these uncommon people the most tiresome. They are not content with letting us carry the whole load, but they sit on it, and scold at us while we carry them."

But Mr. Nutcracker found that Christmas dinners were apt to go as his wife said; and his wife was apt to go as young Featherhead said; and so the Chipmunks were left out, for the first time for many years. The Chipmunks, however, took all pleasantly and accepted Mrs. Nutcracker's apologies, and young Tip looked in on Christmas morning with the compliments of the season, and a few beech-nuts which he had secured as a great dainty. The fact was that Tip's little striped coat was so filled up and overflowing with cheerful good-will to all that he could never understand that any of his relations meant to slight him.

—Adapted for reading, from story by Harriet Beecher Stowe.

WHAT LITTLE SAUL GOT, CHRISTMAS.

Us parents mostly thinks our own's
The smartest children out!
But Widder Shelton's little Saul
Beats all I know about!
He's weakly like—in p'int o' health
But strong in word and deed
And heart and head, and snap and spunk,
And allus in the lead!

Comes honest by it, fer his pa—
Afore he passed away—
He was a leader—(Lord, I'd like
To hear him preach today!)
He led his flock; he led in prayer
Fer spread o' Peace—and when
Nothin' but War could spread it he
Was the first to lead us then!

So little Saul has grit to take
Things jes' as they occur;
And Sister Shelton's proud o' him
And he is proud o' her!
And when she "got up"—jes' fer him
And little playmates all—
A Christmas tree—they ever'one
Was there but little Saul.

Poor little chap was sick in bed
Next room; and Doc was there,
And said the children might file past,
But go right back to where
The tree was, in the settin' room.
And Saul jes' laid and smiled—
Ner couldn't nod, nor wave his hand,
It hurt so—Bless the child!

REPORT OF THE

And so they left him there with Doc—

And warm tears of his Ma's * * *

Then—sudden-like—high over all

Their laughter and applause—

They heerd: "I don't care what you git

On your old Chris-mus tree

Cause I'm got somepin you all haint—

I'm got the pleurisy!"

—James Whitcomb Riley in the *Cosmopolitan*.

SANTA CLAUS.

I used to watch for Santa Claus

With childish faith sublime,

And listen in the snowy night

To hear his sleigh bells chime.

Beside the door on Christmas eve

I put a truss of hay,

To feed the prancing, dancing steeds

That sped him on his way.

I pictured him a jolly man,

With beard of frosty white,

And cheeks so fat that when he laughed

They hid his eyes from sight;

A heart that overflowed with love

For little girls and boys,

And on his back a bulging pack,

Brimful of gorgeous toys.

If children of a larger growth

Could have a Christmas tree

From Father Time, one gift alone

Would be enough for me—

Let others take the gems and gold,

And trifles light and vain

But give me back my old belief

And Santa Claus again!

—Life.

CHRISTMAS IS COMING.

Christmas time is drawing near!

Old Santa Claus will soon be here,

And then, oh, won't we have fun,

Sisters and brothers everyone!

A pretty Christmas tree he'll bring,—

Around its sparkling light we'll sing,—

And on its branches he will place

A toy to gladden each young face.
 And when to say our prayers we kneel
 We'll ask that Santa Claus may feel
 Sorry for little girls and boys
 To whom he's never taken toys.
 That he'll remember not to slight,
 Any little child that Holy Night;
 But if he should forget the poor,
 Then we must think of them the more.

FATE OF THE CHRISTMAS DINNER.

The feast was spread. Mamma and cook to other scenes retreated,
 When Tommy ran to take a look before the guests were seated.
 The turkey, brown as brown could be, reposed upon a platter—
 And sure you need not wish to see a Christmas turkey fatter!
 And Tommy waits not for the guests, who still most sadly linger,
 But right into the turkey's breast he pokes his little finger.
 He gouges out with right good-will a handful of the stuffing,
 And fills his little mouth until his cheeks seem strangely puffing.
 A lordly "drumstick" next he spies, and eagerly he eyes it.
 Then swiftly seizing on the prize, with willing teeth he tries it,
 His pinafore, a sorry sight, would drive mamma to madness,
 While nose and mouth and cheeks are quite a-shine with grease and glad-
 ness.

But Tommy heeds not minor ills—to jelly now he dashes,
 And on the damask cloth he spills a dozen scarlet splashes,
 The plainer food he passes by, and gives his whole attention
 To tasting each and every pie—their fate I dare not mention.
 The Christmas guests had lingered long—they dillied and they dallied—
 Until at last, a merry throng, around the board they rallied.
 Alas! what havoc meets their gaze! Their hopes how quickly falling!
 As they look on in wild amaze, to view the scene appalling.
 The turkey with his "drumstick" bare, his lordly breast quite battered,
 The pies no longer plump and fair, the cloth with juice bespattered.
 Alas! Alack! How eyes do snap! Poor Tommy's fate seemed certain;
 But grandma takes him on her lap, and so we drop the curtain.

—Helen Whitney Clark.

DIALOGUE.*

School—

Little brown squirrel, pray, what do you eat?
 What had you for dinner today?

Squirrel—

Nuts, beautiful nuts, so nice and so sweet!
 I gather them off the tall trees in the wood,
 And eat all the kernels I find that are good,
 And then throw the hard shells away.

School—

Little brown squirrel, but what do you do
When the season for nuts is o'er?

Squirrel—

I gather ripe nuts all the long summer through,
And hide them so deep in a hole in the ground;
Then, when the dark winter again has come round,
I have plenty still laid up in store.

*(The pupil representing the squirrel could be dressed in brown, and might stand under a branch of a tree set upon the stage.)

SNOW IN TOWN.

Nothing is ever so quiet and clean
As snow that falls in the night;
And isn't it jolly to jump from bed
And find the whole world white?
It lies outside on the windows,
It rests on the boughs of the trees,
While sparrows crowd at the kitchen door,
With a pitiful, "If you please?"
And while we are having breakfast
Papa says, "Isn't it light
And all because of the thousands of geese
The Old Woman plucked last night.
And if you are good," he tells us
"And attend to your A, B, C,
You may go in the garden and make a snow man,
As big or bigger than me!"

GREETINGS.

If I could be the Old Year,
That's passing swift away,
I'd hasten to the children,
And to them I would say:
Oh! happy romping children,
That I have loved so dear,
I hope you'll not forget me,
Though I may not be near.
If I could be the New Year,
I'd take them by the hand,
And kiss their smiling faces
As joyously they stand,
And bid them all a welcome,
The fondest that I knew,
And hope they'd learn to love me,
And be my good friends, too.

CHRISTMASTIDE.

December nights are cold and long,
His days are dark and drear,
But through them sounds the sweetest song
That mortals ever hear.
It is the song the angels sang—
Few were the listeners then—
But through the world the echoes rang,
“Peace and good will to men.”
A glory in the skies afar
Shines like a heavenly gem—
It is the radiance of that star
Which rose at Bethlehem.
It lights the lagging winter days,
It crowns the dying year,
And earth grows brighter in its blaze,
For Christmas tide is here.
Sometimes our tumult in the air
O'erwhelms the music's flow;
Sometimes our torches' flash and flare
O'ercomes the heavenly glow;
But willing heart and listening ear
May hear that song again,
For Christmas days at last are here—
“Peace and good will to men.”

—Ninette M. Lowater.

WINTER.

Winter day! frosty day!
God a cloak on all doth lay;
On the earth the snow he sheddeth,
O'er the lamb a fleece he spreadeth,
Gives the bird a coat of feather
To protect him from the weather,
Gives the children home and food,
Let us praise Him—God is good!

**1. Report of the State Educational Board
of Examiners.**

**2. Regulations Concerning State Certi-
ficates and Diplomas.**

3. Report of Reading Circle Board.

REPORT OF THE STATE EDUCATIONAL BOARD OF
EXAMINERS.

DATES OF EXAMINATION FOR STATE DIPLOMAS.

1903

Des Moines.....November 29-30

1904

Des Moines.....November 30-December 1

DATES OF EXAMINATIONS FOR STATE CERTIFICATES.

1903

Cedar FallsNovember 24-25
Des Moines.....December 29-30

1904

Cedar Falls.....March 8-9
Cedar Falls.....June 2-3
Des Moines.....June 9-11
Mount Vernon.....June 22-24
Council Bluffs.....June 29-July 1
Sioux City.....July 20-22
Shenandoah.....July 20-22
Cedar Falls.....July 21-23
Humboldt.....July 25-27
Woodbine.....July 28-30
Iowa City.....July 28-30
Des Moines.....July 28-30
Independence.....August 2-4
Cedar Falls.....November 22-23
Des Moines.....December 27-29

1905

Cedar Falls.....March 6-8
Cedar Falls.....May 31-June 2
Des Moines.....June 15-17
Council Bluffs.....June 19-21
Cedar Falls.....July 19-21
Mount Vernon.....July 20-22
Shenandoah.....July 20-22
Ft. Dodge.....July 24-26
Iowa City.....July 27-29
Des Moines.....July 27-29
Woodbine.....July 27-29
Sioux City.....July 27-29
Oskaloosa.....August 2-4
Independence.....August 22-24
Decorah.....August 30-September 1

WORK OF EDUCATIONAL BOARD OF EXAMINERS.

STATEMENT

Showing record of examinations held by the state educational board of examiners; together with fees received and deposited with the state treasurer.

STATE DIPLOMAS

		No of Applicants		Certificates Issued		Failures	Fees
		Males	Females	Males	Females		
January 1, 1904			1		1		\$ 5 00
June 1, 1905		1		1			5 00
	Totals	1	1	1	1		10 00

STATE CERTIFICATES

December 1, 1903..	.....	2	9	1	9	1	\$ 31 00
December 1, 1903..	Renewals.....	.....	1	.....	1	.....	3 00
January 1, 1904...	.....	9	12	5	5	11	46 50
January 1, 1904..	Renewals.....	19	27	19	27	.....	138 00
February 1, 1904..	Renewals.....	2	...	2	3	.....	6 00
April 1, 1904..	.....	6	3	6	3	.....	27 00
April 1, 1904..	Renewals.....	4	2	4	.....	.....	18 00
May 2, 1904..	Renewals.....	6	3	6	3	.....	27 00
July 1, 1904..	.....	26	53	24	46	9	223 50
July 1, 1904..	Renewals.....	12	27	12	27	.....	117 00
August 1, 1904..	.....	48	85	37	63	33	349 50
August 1, 1904..	Renewals	14	29	14	29	.....	129 00
September 1, 1904..	.....	.....	13	.....	5	8	27 00
September 1, 1904..	Renewals.....	8	24	8	24	.....	96 00
December 1, 1904..	.....	2	4	2	4	.....	18 00
December 1, 1904..	Renewals.....	7	26	7	26	.....	99 00
January 2, 1905..	.....	19	10	14	8	7	76 50
January 2, 1905..	Renewals.....	6	11	6	11	.....	51 00
February 1, 1905..	Renewals.....	.....	5	.....	5	...	15 00
April 1, 1905..	.....	5	4	4	4	1	25 50
April 1, 1905..	Renewals.....	2	1	2	1	.....	9 00
July 1, 1905..	.....	21	48	20	46	3	202 50
July 1, 1905..	Renewals.....	14	32	14	32	.....	138 00
August 1, 1905..	.....	1	.....	.....	1	.....	3 00
August 1, 1905..	Renewals.....	1	.....	.....	1	.....	3 00
August 15, 1905..	.....	46	114	36	82	42	417 00
August 15, 1905..	Renewals	17	70	17	70	.....	261 00
September 1, 1905..	.....	2	7	.....	1	8	15 00
September 1, 1905..	Renewals.....	12	12	12	12	.....	72 00
	Totals	311	632	272	548	123	\$2644 50

PRIMARY STATE CERTIFICATE

			No. of Applicants		C'rtificat's Issued		Failures	Fees
			Males	Females	Males	Females		
November	1, 1903....	Renewals.....		1		1	....	\$ 3 00
December	1, 1903....	Renewals		4		4	....	12 00
January	1, 1904....	.....		8		5	3	19 50
January	1, 1904....	Renewals....		7		7	....	21 00
April	1, 1904....	.....		2		2	....	6 00
April	1, 1904....	Renewals.....		1		1	....	3 00
May	2, 1904....	Renewals.....		1		1	....	3 00
July	1, 1904....	.....		32		30	2	93 00
July	1, 1904....	Renewals.....		3		3	....	9 00
August	1, 1904....	.....		57		54	3	166 50
August	1, 1904....	Renewals.....		9		9	...	27 00
September	1, 1904....	.....		3		3	...	9 00
September	1, 1904....	Renewals.....		19		19	....	57 00
December	1, 1904....	.....		2		2	....	6 00
December	1, 1904....	Renewals..		3		3	....	9 00
January	2, 1905....	.....		4		4	....	12 00
January	2, 1905....	Renewals.....		3		3	....	9 00
July	1, 1905....	.....		42		30	12	108 00
July	1, 1905....	Renewals.....		5		5	....	15 00
August	1, 1905....	.....		4		3	1	10 50
August	1, 1905....	Renewals.....		3		3	....	9 00
August	15, 1905....	.....		46		46	....	138 00
August	15, 1905....	Renewals.....		34		34	....	102 00
September	1, 1905...	.....		65		43	22	162 00
September	1, 1905..	Renewals.....		8		8	....	24 00
Totals			....	367	....	324	43	\$1033 50

SPECIAL STATE CERTIFICATES

		No. of Applicants		Certificat's Granted		No. Failed	Kind	Fees Received and Deposited
		Males	Females	Males	Females			
July 1, 1904.....		1	.....	1	....	Drawing	\$ 3 00
August 15, 1905		3	.....	1	2	Music	6 00
Totals.....		4	.....	2	2		9 00

REPORT OF THE
TWO YEAR STATE CERTIFICATES

	No. of Applicants		No. Cert's Granted		No. Failed	Fees Received and Deposited
	Males	Females	Males	Females		
July 1, 1904.....	....	1	....	1	....	\$ 2 00
August 1, 1904.....	....	9	....	6	3	15 00
August 15, 1905.....	8	17	6	15	4	46 00
September 1, 1905. Renewals ...	1	1	1	1	....	4 00
September 15, 1905,.....	2	5	2	1	4	10 00
Totals.....	11	33	9	24	11	77 00

SUMMARY

	Number of Applicants.			Certificates and Diplomas granted.			No. Failed	Fees Received and Deposited
	Males	Females	Total	Males	Females	Total		
State Diplomas.....	1	1	2	1	1	2		\$ 10 00
State Certificates.....	311	623	943	272	548	820	123	2 644 50
Primary State Certificates.....	....	367	367	....	324	324	43	1 033 50
Special State Cortificates.....	....	4	4	...	2	2	2	9 00
Two Year State Certificates	11	33	44	9	24	33	11	77 00
Totals.....	323	1037	1360	282	809	1181	179	\$3774 00

DIPLOMAS AND CERTIFICATES ISSUED UNDER THE PRESENT
LAW FOR BIENNIAL PERIODS ENDING SEPTEMBER 30, 1905

	1882-1883.	1884-1885	1886-1887.	1888-1889	1890-1891	1892-1893	1894-1895.	1896-1897	1898-1899	1900-1901.	1902-1903.	1904-1905.	Total
State Diplomas..	...	....	38	44	52	38	54	41	42	39	8	2	358
State Certificates	7	9	53	141	238	252	440	509	680	774	652	820	4575
Primary State C.	....	....	....	....	....	....	....	....	114	173	186	324	797
Special State C.	....	....	....	....	....	....	....	....	....	3	5	2	10
Two Year State C	....	....	....	....	....	....	....	....	....	....	5	33	38
Totals.....	7	9	91	185	290	290	494	550	836	989	856	1181	5778

STATEMENT

Of examination fees received and deposited with the State Treasurer for the biennial period ending September 30, 1905

Date of Deposit	No. of Treas. Receipt	Amount
January 2, 1904.....	224	\$ 276 50
May 24, 1904.....	240	87 00
September 10, 1904.....	266	1317 50
February 18, 1905.....	305	301 50
September 30, 1905.....	362	1791 50
Total.....	.....	3774 00

EXAMINATION FEES

Received and deposited with the State Treasurer during biennial periods ending July 1.

1884-85.....	\$ 42 00	
1886-87.....	33 00	
1888-89.....	766 00	
1890-91.....	856 50	
1892-93.....	1140 00	
1894-95.....	1282 00	
1896-97.....	1800 50	
1898-99.....	2456 50	
1900-01.....	3268 00	
1902-03.....	2508 00	
1904-05.....	3161 00	
1905*.....	1791 50	
		\$19,105 00

*From July 1, 1905 to September 3, 1905.

PAID FOR EXPENSES

During biennial periods ending July 1.

1882-83.....	\$ 237 05	
1884-85.....	72 55	
1886-87.....	318 12	
1888-89.....	539 50	
1890-91.....	786 92	
1892-93.....	549 81	
1894-95.....	964 95	
1896-97.....	1052 28	
1898-99.....	1660 57	
1900-1901.....	2377 60	
1902-03.....	2193 88	
1904-05.....	2621 61	
*1905.....	367 79	
		\$13,742 73

*From July 1, 1905 to September 30, 1905.

SUMMARY.

Number of diplomas issued to September 30, 1903.....	356
Number of diplomas issued during the biennial period ending September 30, 1905.....	2
Total number issued and in force September 30, 1905.....	358
Number of state certificates issued to September 30, 1903.....	3755
Number of state certificates issued during the biennial period ending September 30, 1905.....	820
Total number issued to September 30, 1905.....	4575
Expired by limitation to September 30, 1903.....	1984
Expired by limitation during the biennial period ending September 30, 1905.....	755
Total number expired to September 30, 1905.....	2739
Number state certificates in force September 30, 1905.....	1836
Number of primary state certificates issued to September 30, 1903....	473
Number of primary state certificates issued during the biennial period ending September 30, 1905.....	324
Total number of primary state certificates issued to September 30, 1905.....	797
Expired by limitation to September 30, 1905.....	45
Expired by limitation during biennial period ending September 30, 1905.....	171
Total number expired to September 30, 1905	216
Number primary state certificates in force September 30, 1905	581
Number special state certificates issued to September 30, 1903	8
Number special state certificates issued during the biennial period ending September 30, 1905.....	2
Total number issued and in force September 30, 1905.....	10
Number two-year state certificates issued to September 30, 1903.....	5
Number two-year state certificates issued during biennial period ending September 30, 1905.....	33
Total number issued to September 30, 1905.....	38
Expired by limitation to September 30, 1905.....	5
Total number in force September 30, 1905....	33
Total number state diplomas and state certificates in force September 30, 1905.....	2818

STATE DIPLOMAS.

Number granted to college graduates	1
Number granted to State Normal School graduates.....	1
 Total number diplomas issued.....	2

STATE CERTIFICATES.

Number granted to University graduates.....	67
Number granted to College graduates.....	90
Number granted to State Normal School graduates....	463
Number granted to Private Normal School graduates.....	48
Number granted to High School graduates.....	62
Number granted to Academy graduates.....	9
Number granted to Non-graduates.....	81
 Total number certificates issued.....	820

PRIMARY STATE CERTIFICATES.

Number granted to University graduates.....	4
Number granted to College graduates.....	15
Number granted to State Normal School graduates.....	143
Number granted to Private Normal School graduates.....	68
Number granted to High School graduates.....	58
Number granted to Non-graduates....	36
 Total number primary state certificates issued.....	324

SPECIAL STATE CERTIFICATES.

Number granted State Normal School graduates.....	2
 Total number special state certificates issued.....	2

STATEMENT

Of the expenses of the State Educational Board of Examiners from
October 1, 1903 to October 1, 1905.

WARRANTS ISSUED.

From October 1, to December 31, 1903.

1903		
Oct. 14	F E. Bolton	\$ 3 00
Nov 12	Selina Gooder	5 00
Nov. 12	W F. Giesseman	35 40
Dec. 5	G. W. Walters	3 00
Dec. 5	C. A. Fullerton	1 50
Dec. 5	A. W. Rich	6 00
Dec. 19	Alice Altona	28 40
Dec. 24	H. H. Seerley	44 03
Dec. 28	O. J. McManus	56 02
Dec. 27	J. F. Brown	60 13
Dec. 29	Geo. E. MacLean	5 85
Dec. 31	J F. Mitchell	5 55
Dec. 31	Hattie Moore-Mitchell	5 55
Dec 31	Fannie Schaffer	10 05
Dec. 31	Grace Troutner	10 05
Dec. 31	Alice Altona	9 00
Dec. 31	Emma C. Moulton	7 05
Dec. 31	J. F. Riggs	14 20
Dec. 31	R. C. Barrett	16 32
Total		361.10

From January 1, to December 31, 1904.

Jan. 16	W. F. Giesseman	\$ 7 60
Jan. 18	H. H. Seerley	9 60
Jan. 22	Geo. E. MacLean	12 03
Jan. 30	Alice Altona	70 50
Feb. 6	Addie B. Billington	30 00
Feb. 18	O. J. McManus	29 00
Mar. 1	I. S. Condit	3 00
Mar. 1	G. W. Walters	3 00
Mar 1	L. W. Parish	3 00
Mar. 1	A. W. Rich	3 00
Mar. 1	C. A. Fullerton	3 00
Mar. 7	Alice Altona	51 00
Mar. 19	H. H. Seerley	14 79
Mar. 19	A. W. Rich	9 00
Mar. 31	Alice Altona	81 00
Apr. 30	Alice Altona	78 00
Apr. 30	Ella Ford-Miller	6 00

May 6.....	H. H. Seerley.....	\$ 10 15
May 6.....	H. H. Seerley.....	14 58
May 6.....	Alice Hopper.....	10 50
May 6.....	Clara A. Tilton.....	3 00
May 12.....	M. F. Arey.....	3 00
May 26.....	Sarah Riggs.....	3 00
May 26.....	W. H. Bender.....	3 00
May 31.....	Alice Altona.....	75 00
June 13.....	Emma C. Moulton.....	5 00
June 13.....	Grace Troutner.....	5 00
June 13.....	Agnes Patterson.....	5 00
June 13.....	F. L. Douglass.....	6 55
June 23.....	Iowa State Normal School.....	7 00
June 23.....	G. W. Walters.....	2 25
June 23.....	M. F. Arey.....	3 00
June 23.....	G. W. Sampson.....	3 00
June 23.....	K. F. Geiser.....	4 50
June 23.....	H. E. Cummins.....	3 00
June 23.....	Enola P. Pierce.....	2 25
June 23.....	Sarah F. Price.....	3 00
June 23.....	E. a L. Gregg.....	2 25
June 23.....	Allison E. Aitchison.....	2 25
June 23.....	C. P. Colgrove.....	1 50
June 23.....	Anna McGovern.....	1 50
June 23.....	Bertha L. Patt.....	3 00
June 23.....	Henrietta Thornton.....	3 00
June 23.....	Ira S. Condit.....	3 00
June 23.....	G. W. Newton.....	3 00
June 23.....	S. F. Hersey.....	3 00
June 23.....	L. W. Parish.....	3 00
June 23.....	A. W. Rich.....	12 00
June 29.....	Alice Altona.....	93 70
June 30.....	F. L. Douglass.....	4 85
June 30.....	Jennie Culbertson.....	4 95
July 16.....	Jessie McKlveen.....	18 00
July 16.....	Emma C. Moulton.....	15 50
July 30.....	Alice Altona.....	107 90
Aug. 3.....	O. J. McManus.....	44 48
Aug. 3.....	F. C. Ensign.....	6 00
Aug. '16.....	H. C. Dorcas.....	6 00
Aug. 29.....	Emma C. Moulton.....	31 90
Aug. 29.....	Alice Altona.....	97 65
Sep. 28.....	Agnes Patterson.....	25 12
Sep. 28.....	Ida M. Rea.....	24 00
Sep. 28.....	Grace Troutner.....	26 90
Sep. 28.....	Jennie Culbertson.....	20 10
Sep. 30.....	Alice Altona.....	76 50
Sep. 30.....	Anna M. Rea.....	4 50
Oct. 12.....	G. H. Krohn.....	13 60
Oct. 12.....	Will Anderson.....	22 26

ov. 12.....	Addie B. Billington	\$ 3 00
Dec. 7.....	W. H. Bender.....	3 00
Dec. 7.....	L. W. Parish.....	3 00
Dec. 7.....	S. F. Hersey.....	2 25
Dec. 7.....	G. W. Walters.....	4 50
Dec. 7.....	H. H. Seerley.....	18 35
Dec. 7.....	G. W. Newton.....	2 25
Dec. 7.....	H. C. Cummins.....	1 50
Dec. 7.....	M. F. Arey	1 50
Dec. 7.....	Sara F. Rice.....	3 00
Dec. 7.....	Anna E. McGovern.....	1 50
Dec. 7.....	Ira S. Condit.....	3 00
Dec. 7.....	Bertha Patt.....	1 50
Dec. 7.....	K. F. Geiser.....	1 50
Dec. 7.....	A. W. Rich.....	9 00
Dec. 7.....	C. P. Colgrove.....	3 00
Dec. 7.....	Enola P. Pierce.....	1 50
Dec. 7.....	C. A. Fullerton.....	3 00
Dec. 7.....	G. W. Sampson.....	6 00
Dec. 7.....	H. H. Seerley.....	8 00
Dec. 31.....	Alice Altona.....	30 00
Dec. 31.....	Alice Altona.....	13 50
Dec. 31.....	Joseph S. Hofer.....	9 70
Dec. 31.....	Fannie Schaffer.....	17 60
Dec. 31.....	G. H. Krohn.....	1 50
Total.....		\$1807.46

From January 1, to September 30, 1905.

Jan. 21.....	J. C. Bennett	\$ 12 97
Feb. 1.....	H. H. Seerley.....	23 27
Feb. 9.....	Alice Altona.....	49 50
Feb. 13.....	Maria M Roberts	17 13
Feb. 23.....	Ethel McLanahan.....	6 51
Apr. 10.....	O. J. McManus.....	116 28
Apr. 10.....	H. H. Serely.....	10 15
Apr. 22.....	G. H. Krohn.....	1 60
May 24.....	Geo. E. Mac Lean.....	22 73
May 29.....	Viola H. Schell.....	50 00
June 17.....	Elizabeth Culbertson.....	8 30
June 19.....	Minna M. Merriam.....	15 75
June 19.....	Lucy E. Plummer.....	20 63
June 19.....	Iowa State Normal School.....	5 40
June 20.....	Louise E. Hughes.....	33 00
June 21.....	A. T. Downey.....	14 50
June 23.....	Mara M. Roberts	5 02
June 30.....	Viola H. Schell.....	75 00
July 6.....	Baker-Trisler Co.....	1 10
July 17.....	G. H. Krohn.....	15 05
July 22.....	John F. Riggs.....	8 71

July 25.....	C. A. Wise & Sons Co.....	\$10 92
July 25.....	Lura C. Kingman.....	12 50
July 25.....	Lucy E. Plummer.....	12 00
July 25.....	H. H. Freer.....	7 25
July 25.....	Geo. H. Betts.....	6 00
July 31.....	Viola H. Schell.....	13 79
July 31.....	Viola H. Schell.....	75 00
July 31.....	Viola H. Schell.....	10 07
Aug. 2.....	J. M. Hussey.....	3 00
Aug. 3.....	A. L. Brown.....	3 00
Aug. 10.....	Elizabeth Dean.....	9 75
Aug. 10.....	D. E. Brainard.....	9 60
Aug. 10.....	Clara S. Dodds.....	6 35
Aug. 11.....	Louise E. Hughes.....	42 90
Aug. 12.....	Mrs. Nellie Sillick.....	18 00
Aug. 14.....	Jos. S. Hofer.....	19 75
Aug. 14.....	Elizabeth Culbertson.....	48 40
Aug. 14.....	A. W. Merrill.....	20 10
Aug. 26.....	Viola H. Schell.....	14 55
Aug. 26.....	Viola H. Schell.....	9 07
Aug. 31.....	Viola H. Schell.....	75 00
Aug. 31.....	Agnes M. Patterson.....	13 28
Sept. 12.....	A. W. Merrill.....	3 35
Sept. 16.....	Elizabeth Culbertson.....	4 80
Sept. 22.....	Will Anderson.....	12 04
Sept. 23.....	Elizabeth Culbertson.....	9 80
Sept. 29.....	Viola H. Schell.....	19 55
Sept. 30.....	Viola H. Schell.....	75 00
Total.....		<u>\$2 884 88</u>

DIPLOMAS AND CERTIFICATES

DIPLOMAS

Date	To Whom Issued	Date	To Whom Issued
1904 Jan. I	Martha F. Roberts	1905 June I	Walter B. Munson

STATE CERTIFICATES.

1903 Dec. I	Ida Culver Jennie F. Hall Ella Hoffman Leonora Jacobson Anna Johnson Ethel Langhead Mary Shilliam O. S. von Krog Retta Walrod Maud C. Weatherwax Viola H. Schell	1904 Jan. I	Anna B. Osborne F. E. Howard John W. Jackson Frank Jarvis E. C. Meredith Elizabeth Carroll Fred L. Casidy Grace Greenfield Jessie M. Lickel E. E. Martin J. W. Miller Paul J. Scarbro R. W. Sies Sylvia Smith Nellie Stewart Walter S. Athearn Ida B. Berg Lillian Blakely O. E. Dixon Mabel Kitterman P. W. Peterson Katharin G. Willis A. W. Grisell Forest C. Ensign
1904 Jan. I	Lillian Bridgeford O. B. Chassell Lillian B. Daniels Nellie Dority Ezra Gibson A. L. Heminger Luella Johnson Mary E. Lovejoy O. D. Longstreth Jessie Nutting Priest Jessie B. Roberts G. W. Satterthwaite Celia G. Troutner Ella B. Chassell Florence Claypool Elizabeth M. Frye Nellie Johnson Mary E. Steele J. G. Grundy C. F. Barrows J. C. Bennett Charles Benson Harriet Bieghler Mary S. Christ Valona Helmick Fannie Holmes Elizabeth D. Jones Henrietta Kelly Frances Lathrop Alice G. Lewis James L. Mishler Mattie O. Phillips	Feb. I	S. S. Wright P. E. McClenahan
		April I	Zoe Britton Don Campbell C. E. Cavett George F. Failor Ward Hannah Loula Houck Walter P. Jensen Nellie M. Johnson Guy Ribble F. E. Ball Prudence Jackson Anna Montgomery S. M. Coddington Jos. C. McGee G. U. Gordon

STATE CERTIFICATES-CONTINUED.

Date	To Whom Issued	Date	To Whom Issued
May	James Lawrey Jesse Benjamin E. W. Fellows J. H. Jacobs Jeannett J. Joy Sarah E. Kendall Maud St John LuVerne A. Wilson Ozias Lincoln	1904 July	F. H. Stewart J. C. Smith Ella L. Sandager T. B. Stewart Mary A. Sartori Grace L. Smith R. R. Stuart Frances R. Stillwagon Bertha C. Stiles Josephine Ullman Thomas Teakle Daisy E. Turner Alice Vaala Pearl VanTuil Edith VanTuil William Wendt Ernest Walker Minnie Willits Jennie Woodard G. E. Wallace Bessie Garland Chloris Anderson Gertie Ayers Loretta H. Blake O. L. Brooks Nellie Cahow Dora D. Clark Mae G. Dolan Rose M. Ferguson A. W. Fuller Flora B. Galt A. T. Gifford E. C. Hill Mame E. Hochstetler Edith Korinke John W. McCulloch Mary R. McDuffie G. E. Mueller Olive I. Orton F. A. Poots Mary Ryan Jessie L. Turner Katherine Walters A. O. Wydell Beniah Dimmitt Jennie Hallingby M. R. Hassell Agnes Heightshoe Hilda Lundin Ella Ford-Miller Margaret Montgomery Katharine Newberry Sophia Heiber-Pfeifeer Mabel Shearer F. W. Shultis Fannie B. Small
ly	B. D. Atchley Bessie P. Ballentine Julia Bucklen Florence Butler Bessie C. Brinton Mabel J. Beudel Amy S. Crary Jessie M. Clark A. S. Colgrove Flo Correll Cora A. Downey Olive S. Dickerson Essie M. Davies Raymond Dix Ruth E. Egloff Edna A. Foxwell Ruth O. Fuller Mary M. Faint Chris Fesenbeck Ethel Gerken Ethel Hall Margaret B. Hardy Frank G. Hart Owen Hammersley Harriet E. Joice J. L. Johnson Helga L. Jacobson Ora E. Johnson Carl J. Knock Vida R. Keene Ruth C. Long B. B. McGinnis Mary McComb E. L. McConkie Cora Mercer Fannie Mueller C. S. Misseldine Elizabeth Minney Maud Nelson Carrie Olsen Mabel A. Payton Margaret F. Pearson Maud E. Pattison C. W. Roadman E. A. Roadman Mike M. Ries		

Date	To Whom Issued	Date	To Whom Issued
1904 July	<div>Emma R. Valenta</div> <div>Clara A Boss</div> <div>Mary Heiber</div> <div>Ole H. Hollen</div> <div>Margaret Taylor</div> <div>J. R. VanFosseen</div> <div>Life Harrison</div>	1904 Aug.	<div>J. L. Packer</div> <div>Adda B Patterson</div> <div>Delpba E. Peak</div> <div>Cora Quayle</div> <div>Millie M. Rogers</div> <div>Valeria Secor</div> <div>Cora O. Selby</div> <div>J. H. Seymour</div> <div>R. H. Sylvester</div> <div>Adda B. Stone</div> <div>G. H. Schwenke</div> <div>Verna M Scott</div> <div>Ella F. Williams</div> <div>J. A. Yeager</div> <div>Ida Haloldson</div> <div>Jean E. MacKeller</div> <div>Louise A. Nelson</div> <div>Georgia E Packer</div> <div>Lucy O. Pingrey</div> <div>Lina C. Ankerman</div> <div>Anna B. Coomer</div> <div>F. W. Else</div> <div>Melvin R. Fayram</div> <div>F L. Kolb</div> <div>Marion E. Leonard</div> <div>John Sogard</div> <div>Fannie A. Van Dorn</div> <div>Mamie A. Klinefelter</div> <div>Ida G Ziegler</div> <div>Bertha L. Marsh</div> <div>Francis E. Smith</div> <div>B. J. Read</div> <div>Winnifred Morris</div> <div>Mary Michener</div> <div>Gertrude Clark Parker</div> <div>Constance G. Camp</div> <div>Edna Wells</div> <div>E G. Quigley</div> <div>Susan Kirstetter</div> <div>Ella Lukenbell</div> <div>Katherine Sass</div> <div>A. D. Cromwell</div> <div>Bettie Remstrom</div> <div>Franc Lymer</div> <div>Bertha Westphal</div> <div>L. A. Giddings</div> <div>C. C. Knoll</div> <div>Emily Witter</div> <div>Leo V. Beaulieu</div> <div>Jessie I. Graham</div> <div>Jessie P. Hastings</div> <div>Lida Marshall Hope</div> <div>Chester E. Moffett</div> <div>Edmund L. Kelley</div> <div>Anna M. Sorenson</div> <div>Grace N. Swan</div>
1904 Aug.	<div>E. R. Jackson</div> <div>Charlotte Dryden</div> <div>Palmoe Arent</div> <div>E. L. Ackerman</div> <div>Minnie B. Ashton</div> <div>Nellie M. Bay</div> <div>E. F. Bean</div> <div>Rose Bixler</div> <div>Clara E. Bonnewell</div> <div>Laura Baker</div> <div>Margaret Butterfield</div> <div>C. E. Burton</div> <div>Mattie A. Connolly</div> <div>Martha E. Cooper</div> <div>Elmer Charlson</div> <div>H. L. Eells</div> <div>Mae S. Ensign</div> <div>Agnes M. Farnsworth</div> <div>Mary M. Feltus</div> <div>Jessie M. Ford</div> <div>Madeline Feyereisen</div> <div>A. S. Gist</div> <div>Velma Gray</div> <div>W. I. Griffith</div> <div>Alice Haley</div> <div>Tura Hawk</div> <div>T. B. Homan</div> <div>Elizabeth Henderson</div> <div>G. C. Hoyt</div> <div>Lillian M. Johnson</div> <div>Ida F. Judd</div> <div>Orie A. Johnson</div> <div>Lura Chase Kingman</div> <div>Anna V. Kegler</div> <div>Grace I. Keteleson</div> <div>Grace Lambert</div> <div>Harry Lambert</div> <div>John Ludwickson</div> <div>Helena Messerschmidt</div> <div>Lillie M. Mohan</div> <div>Harry B. Morgan</div> <div>G. H. Mount</div> <div>J. C. McGlade</div> <div>Chas. D. McClain</div> <div>Amelia McDonnell</div> <div>Blanche McLaughlin</div> <div>Kate H. McDonald</div> <div>Allie Nelson</div>		

STATE CERTIFICATES—CONTINUED.

Date	To Whom Issued	Date	To Whom Issued
1904 Aug.	Abram O. Thomas Roland Neal Daisy Boylan W. O. Chisholm H. L. Cosner Anna Duffield Wm. T. DeMar Eva M. Fleming Katie Griffin Lucy E. Hall Margaret McCormick Ethel Moore Terza Quick Ida P. Richmond Maye Sedgwick Ralph A. Sell Marie L. Schmidt C. C. Smith Caroline S. Toby E. R. Thomas A. C. Voelker J. T. Bradshaw E. R. Collins F. L. Douglass Kittie Grimes Anna M. Hill Liona Hopkins Valeda Madsen J. B. Morris F. N. Olry Fannie D. Patton Kittie C. Preston Antonia J. Stober G. G. Washburn Eva M. White Robert F. Wood	1904 Sept.	Mabel S. Young Maria Z. Pingrey Elsie Whited Mollie B. rber Millsap Loren W. Inman Maisy Schriener Maud Hursey W. P. Johnson P. P. Sullivan Chas. H. Young W. J. Cattell Francis Rogers Florence Marshall Clara E. Thompson Lura Phillips Lora L. Richardson Katherine M. Taylor H. O. Bateman Laura A. Hoag L. E. A. Ling J. C. King
1904 Sept.	Anna Black Lydia B. Christ Lucy D. Mason Florence Reid Elsie Travis Lillie Ludwig Minnie Bucklew Dora Cornelysen Anna R. Darwin Ida Droegemeyer Kate A. Hummer Minnie H. Hunter Hattie Kline Marshall McFee Emma L. Meier Mary B. Miller Crissie Millspaugh Carrie E. Robbins Lucy Sullivan	1904 Dec.	Lily F. Ashley H. E. Deater Harriet M. Furry Myrta Harlow Mary Lytle Agnes Otto Mame R. Prosser Nellie L. Smith Ella M. Thompson Jessie C. Walker F. A. Welch Rose W. Reed Mamie Burgess Olive Orr Lydia J. Rolston Emelia Seltzer Laura S. Horn Gladys E. Dunn Myrtle Ivey J. W. Jones Ethel A. Lutes J. O. Murphy Jessie G. Stuart Jessie L. Bradshaw Mary Davis Ada Eighmey J. T. Fackler Thyrza Horsewell Anna Kuebler R. T. Scott L. P. Sornson Bertha Taylor Lydia Tostlebe J. F. Treasure

STATE CERTIFICATES—CONTINUED.

Date	To Whom Issued	Date	To Whom Issued
1904 Dec. 1	Etta J. Rider Mary Brannan J. E. Cameron Lizzie Rhodes Elsie Orcutt	1905 April 1	Agnes J. Field May E. Francis Hulah Coon Harry G. Martin Lucy G. Mowrer R. M. Peterson L. N. Gerber
1905 Jan. 2	W. H. Branch L. P. Breeden E. E. Cavanaugh Mae Comstock Fannie Eberhart Rose Friedman H. J. Henderson M. H. Hoffman H. W. Hurt Bernice Johnston H. E. Jones I. C. Lovejoy F. J. Mantz Ceola Marks F. M. Phillips Emma H. Sheets Mary L. Sutton H. O. Swingen H. M. Tiffany B. F. Wescoat J. H. Wescoat P. L. Sager C. Jay Boyington Mrs. J. L. Buechele Emma A. Dilley H. A. Dwelle Jay A. Lapham E. C. Lynn Mary Morton Jeannette Sloss F. O. Smith Nellie Syverson Mary E. Waller May Williams Jennie E. Wolcott Myra Dungan Kittie M. Howard Katherine Paine F. W. Perkins	1905 July 1	Eva M. Baker Mary A. Brown C. E. Buckley Grace Brainard Isabella Cowan L. D. Curtis Edith H. Curtis Lillian Dale George D. Eaton James E. Fitzgerald Maud L. Foot Elsie Farbrick Margaret Gilchrist Martha Hutchinson Albert L. Halstead O. E. Hibbs Elizabeth Hieber Florence Kimball J. H. Kelley Mollie Kelly James Kendrick Lillian E. Long Jennie M. Lindsey Philomena Meyer Alice R. Mallory B. W. McKeen John McPherson Carrie L. Neidy A. T. S. Owen Cora D. Patterson Cora A. Reed Mary Rourke Erdena Rose Mary E. Patterson Leslie I. Reed Elsie Steinman Edna Stone Katharine Sheehan William R. Sandy Lesa D. Troth Cynthia T. Wight Ellen B. Wito Belle Woodford Margaret A. Gorman Emma A. Jackson E. W. B. Mark Veva Aylwood Emma Arent
1905 Feb. 1	Florence Okerson Francis Mills Nellie Young-Foote Celesta Schoener Delia Reilley		
1905 April 1	Macv Campbell Sarah Carpenter J. T. Colgrove Frank E. Ford		

STATE CERTIFICATES—CONTINUED.

Date	To Whom Issued	Date	To Whom Issued
1905 Aug. 15	Arthur Bruce Mathilde Becker Ruth Butler A. D. Coffman Bess J. Chase David D. Carlson Harry A. Crawford John M. Dunkerton Matilda A. Duns Laura Finch Grace Farrell Jessie Farlow Mildred I. Goodrich John S. Goldthwaite Theresa A. Gepson Alice Graham Myrtle Goodykoontz Charlotte Hunt Etta K. Hildabrand Winnifred M. Harris Augusta Hitchcock Carrie Hiams Clara E. Johnson Effie Longman Mae Lyon Albert J. Meyer Orty C. Morrison Walter S. Mason Jesse B. Manifold Kate L. Morse Althea Montgomery Bessie McCrea Nora McCaffree Anna C. McKinnon Gertrude Nenno Myrtle Newman Hilma C. Olson Elma Overmire Stella Pence Jessie A. Parish Mabel Parish Lillie Parmenter Lucy S. Royce Leo Ranney Alma L. Reichert Elizabeth Riff Ida L. Soecht Lena Swanson Fay M. Srawn Grace N. Smith Minnie Vannest Virginia White Nell West Mabel Wilbur Starr G. Wilson Clyde D. Workman	1905 Aug. 15	Calvin B. Adair Elizabeth Fitz Alice Fountain Hattie T. Hall Clara L. Krause Minna M. Merriam Joseph S. Ulm Harriet Wood Mae L. Toomey Arlynn M. Dance Coralie Dwinell Clara Mead Sina Olsen Bessie Granger Sabra Harrington Leo H. Paulger Royal Smalley Lida Updegraph Rachel M. D. Iph Florence Mapes Lela Blaine E. H. Downey Newell E. Johnson R. C. Kelley Lou C. Landers C. F. Mueller Lynn Anderson Fred Deming Hattie Drake C. F. Eakins Minnie Evans W. B. Gregg Mabel Huffman Myra Jensen C. R. Laraway Mary Llewellyn Edna McMullen Lillian L. Mitchell E. J. P. Hock A. N. Smith Marv F. Smith Edwin M. Westbrook C. C. Willard Frank S. Willy Howard S. Wood Daisy Longman Roland Wevers Sudie Prose Florence Aldridge Le Roy Anderson Nellie M. Fox F. D. Imlay Edith Norton Isabelle Tripp Alice P. Woodford Adeline Crickett

STATE CERTIFICATES—CONTINUED.

Date	To Whom Issued	Date	To Whom Issued
1905 Aug. 15	Mary S. Moore R. H. Williams Matie Alexander Myrtle E. Anders Berton L. Bankert Hanna Clendenon Alice G. Edgerly Nellie M. Emmons Emma J. Fordyce Elizabeth M. Gill Florence E. Graham Laura R. Graham Charles C. Gray Mary D. Hall Alice E. Kepler Lucie E. Lukeus Ida I. Morris Emma C. Moulton L. T. Newton John F. Overmeyer Ella M. Payton Edith L. Phillips Edna S. Poorbaugh John J. Rae Harriet M. Rankins Lillian Rogers Anna B. Romig Caroline Schichtl Nellie R. Schroeter Nettie M. Siders Tillman Smith Harris W. Smith Harriet M. Stephens Mamie St. George Hilles Taylor Mary H. Wickware Lillian E. Waite Lulu Washburn	1905 Aug. 15	Daisy Estella Wood Ethel M. Estebrook Arthur M. Gray Hattie W. Hibbin Lena Hoffman Flora E. Smith Jennie A. Stiles Janet Wilson David Williams Ellen J. Wing Bertha V. Wyant
		1905 Sept. 1	Zetta Brewer I. M. Boggs Lavinia Mowrey Lulu Mills W. H. Kent Amy L. Clark James A. Eckenrod Stephen R. Ritz Katherine Mauthe Albert S. Murray Louise Pashby Eva M. Saucer Frank M. Stotler Charles Murray Mabel M. Whitney Will Gossard Alvin J. Cavana Ruby Baughman Ida Reimer Leonard J. Salisbury Jessie Butterfield William C. Hicks Clara S. Rice Lawrence G. Focht Zulema Kostomlatsky

PRIMARY STATE CERTIFICATES.

1903 Nov. 1	Mary Young	1904 Jan. 1	R. May Pyne Gertrude Diemer Agnes Hannum Helen McGrath Lucie E. McNalley Elizabeth Penny Lavinia Forsythe Agnes Patterson Josephine Petheram
1903 Dec. 1	Lenna Cowles Clara Lynn Harriet Riley Dora Trumbauer		
1904 Jan. 1	Una Grettinberg Ora Claytor Emma Forsythe	1904 April 1	Clara E. Jones Ethyl M. Lyon

STATE CERTIFICATES—CONTINUED.

Date	To Whom Issued	Date	To Whom Issued
1904 April	Blanche Stoddard Jane Kreigh	1904 Aug.	Florence McNeal Ida M. Marachal Alice Newstrand Myrtle Parkes Mary E. Reece Esther Ridley Anna Rhynsbarger Maud Rohlfson Minnie R. Rice Lida C. Sands Laura T. E. Specht Katherine Toole Maud Thompson Nettie E. Taylor Jessie R. Wyler Katherine Whitehead Lydia M. Wilbur Ella Wood Lillian N. Smith Mary Hoagland Allie B. LeFever Jessie M. Carter Anna O. Lothian Margaret Overholser Maud Logan Jennette N. Holden Edna M. Burroughs Minnie L. Brown Nellie Biem Ressa Dansdill Clara A. Long Pearl McDowell Claire Nugent Evalena Rist Mabel Rittgers Maud Webster Linda Westerman Albenia McDonald
1904 July	Edith Anderson Katie Boehmke Emma Buxbaum Jessie Bernard Ellen Clark Grace A. Cole Edith Gritman Gertrude Graham Georgiana Humphrey May Hiams Henrietta Hill Cora M. Jenson Catherine Kyle Florence McConnell Grace M. Ott Katherine Roome Mary L. Shafer Lulu B. Seyller Clara L. Van Pelt Floe Yountkin Lillie M. Britten Alice B. Hawk Anna E. Sullivan Ruth A. Bowen Anna Butterfield Neva E. Curley Jennette Donaldson Minnie Kuencke Lucy H. Lorenz Mae Nellie Morris Ethel B. McCreedy Matte M. Rogers Sadie Mann	1904 Sept.	Lida E. Hewett Ethel F. Grover Minnie M. Netcott Maud Anna Cash Emma Crisman Belle McConnell Kate G. McGuire Charlotte E. Sweney Nellie R. Swingle Mary L. Talbott Amelia Thompson Esther L. Adolphson Sadie Hazen-Gardiner Margaret Condon Lulu B. Ramsey Florence Nettie Rice Bessie G. Ward
1904 Aug.	Elizabeth Graves Katherine White Jessie M. Box Hulda Cremer Blanche Conn Bertha Conn Katherine Donlon Roma E. Fritsinger Emma L. Freyermuth Avis C. Grawe Cora L. Gullickson Alice K. Haynes Jennie Jennings Louise Kamanski Jennie Kelley Lydia Keep Erma Maxwell Rachel McCreedy Grace M. McKeen		

STATE CERTIFICATES—CONTINUED.

Date	To Whom Issued	Date	To Whom Issued
1904 Sept. 1	Carrie M. Evans Ida H. Hoon Johana A. Linehan Anita McCune Mary Uhley Etta B. Wallack Emma M. Cash Mary A. Martin Hattie L. Wilson Ruth Van Husen Emma B. Hoon	1905 July 1	L. Josephine Miller Mae E. Patterson Nina Rice Mabel Rider Vera G. Titus
1904 Dec. 1	Fannie A. Foster Olive Gruver Minnie Markham Tillie S. Berger Maud Burris	1905 Aug. 1	Ina E. Groat Elizabeth Pomeroy Mabel Starr Cora A. Chamberlain Mary E. Edelen Jane Howe
1905 Jan. 2	Emma F. Booth Margaret Kelly Effie Ramsey Dorthea Zerwekh Clarice J. Baird Celia Potts Julia Jacobs	1905 Aug. 15	Julia C. Anderson Jennie M. Alton Bessie Benham Vera M. Bradley Helen Blackstone Belle Brown Nellie Burdinner Effie Cornell Claire S. Cook Margaret Cowden Dot Dillon Emma Davidson Martha M. Ensign Esther S. Faner Ester Fitzsimmons Estella Grayson Ethel L. Goodwin Della Granger Edith Gillon Myra L. Gault Lillian E. Hanson Ethel B. Lawrence Myrta I. Lyon Jennie L. Middleton Mary McDonough Nora McCullough Nellie M. Pollock Jeannette Ritchie Effie M. Williamson Katherine Stichter Pansy A. Stuart Grace E. Storm Martha Sweny Helen L. Snowden Jessie C. Smith Nellie Tompkins Lenore G. Titus Ethel E. Wyant Grace Pearson Estella Foster Winafred Jennings Clara Wagner Elnora Hart
1905 July 1	Grace Brakel Grace L. Bates Emma C. Curtis Ina M. Clump Eunice M. Calkins Alma B. Culp Elizabeth Carl Edna Detweiler Maud M. Davis Susie E. Fobes Nannie Gonzales Ruth McGregor Haines Nellie I. Harden Nellie Haskell Helen L. Lewis Gertrude McKone Grace Rogers Clara Richlefs Ida Shaw Addella I. Taylor Exene F. Taft Louise A. Watson Margaret Young Neva Bateman Alice Kinsley Anna Schneider Minnetta Smith Mae Williams Ala Brenton Blythe McCormick		

REPORT OF THE
STATE CERTIFICATES—CONTINUED.

Date	To Whom Issued	Date	To Whom Issued
1905 Aug. 15	Mary McLoury Carrie Sperling Anna L. Rathbun Helena Feeny Josephine Knox Florence Knox Margaret Luther Lydia Schulz Stella Peterson Bessie A. Stickney Kittie Townsend Avis Williams Lucy H. Meacham Frances A. Burns Grace L. Hoyt Margaret C. King Lillian Lee Barber Minnie Hanson Effie Stevens Weltha Speake May A. Scott Edyth Overmyer Madge M. Noble Mary L. Loveland Eva Jane Kephar Harriet Ingman Ella Z. Huffman Minnie K. Hindman Carrie M. Hawver Sara L. Hart Anna Grace Martha Garrison Alice R. Davies Adeline Currier Orpha E. Crook Nannie E. Crawford Eleanor A. Canty Sadie Batten	1905 Sept. 1	Edith G. Clark Harriet Clark Ruth Clark Mattie C. Collins Margaret Condon Edith Cooper Florence Drake Ethel Gibbs Edith Glasson Gladys V. Hall Bertha Hinds Abbie L. Hunter Vera B. Jeffries Ellice Langfitt Kate Lisor Lulu MacWilliams Elizabeth Prescott Sadie Pyle Bernadine Rehker Daisy Rice Della Rust Nellie J. Sillick Jessie Snook Edna Squires Bertha Heller Laura L. Lynch Winifred MacFarland Edna Harrington Adah M. Jandt Maud I. Sanford Ruth Lawrence Laura Shurtz Irene Taylor Mary E. Pendray Hazel E. Phillips Lizzie Washburn Mary I. Robinson Christie A. Todd Emma Kalb Olive G. Reeve Harriet Carpenter Nellie C. Thompson Ethel E. Smith Helen Johnston Lulu B. McCorkle
1905 Sept. 1	Vida Griffith Lillian Kosier Ila Bertram Blanche Bauserman Anna Brown		

SPECIAL STATE CERTIFICATES

1904 July 1	Maud L. Popp drawing	1905 Aug. 15	Estelle B. Renne music
----------------	----------------------	-----------------	------------------------

STATE CERTIFICATES—CONTINUED.

TWO-YEAR STATE CERTIFICATES.

Date	To Whom Issued	Date	To Whom Issued
Aug. 15	D. F. Shepherd Grace Shore Roy Snodgrass Grace Farewell Ralph Roberts Viola E. Smalley Isabelle Wilder Edwin K. Mapes Anastion Paul Francis Schwendemann Florence Fenner Minnie Harmsen Leah Riker E. R. Hutchinson	Aug. 15	Nell Dally Alice Divelbess Ethel Hill Anna Longman Elizabeth McDonald Ida Pearce Jaqueline Platt
		Sept. 1	Ray Snodgrass Carrie S. Taylor
		Sept. 15	Martin Mikish Marguerite Moore J. R. Thorgrimson

SPECIMEN LISTS OF QUESTIONS.

STATE DIPLOMA.

GEOMETRY.

1. Prove: The straight line joining the middle points of two sides of a triangle is parallel to the third side, and equal to one-half of it.
2. Prove: The sum of two opposite sides of a circumscribed quadrilateral is equal to the sum of the other two sides.
3. Construct a square having given the diagonal. Explain.
4. Prove: If through a fixed point, without a circle, a secant and a tangent are drawn the product of the whole secant and its external segment is equal to the square of the tangent.
5. Prove: The area of a parallelogram is equal to the product of its base and altitude.
6. State and prove the Pythagorean theorem.
7. Inscribe a square in a given circle.
8. Prove: If the opposite angles of a quadrilateral are supplementary the quadrilateral can be inscribed in a circle.
9. Prove: If a straight line is perpendicular to one of two parallel planes, it is perpendicular to the other also.
10. Prove: The volume of a circular cylinder is equal to the product of its base and altitude.

ZOOLOGY.

1. Name and define the essential parts of an animal cell. What is the name of the group to which all one-celled animals belong?
2. To what sub-kingdom does the hydra belong? Make a sketch of one, naming the principal parts.
3. Name an animal belonging to the Echinodermata. Describe its water-vascular system.
4. Tell what you know about the anatomy of the clam, or fresh-water mussel.

5. What are the principal points of difference between a crustacean and an insect?

6. Name and define the principal parts of the eye of a vertebrate animal.

7. Name and define the class to which each of the following animals belong: fish, frog, turtle, bird, man.

8. Define the following sciences: embryology, histology, morphology, paleontology, zoogeography.

9. Name and locate the bones in the mammalian head.

10. Describe the origin of the central nervous system of a typical vertebrate.

GEOLOGY.

1. What is geology? What are the subdivisions of the science?

2. What are rocks? Name ten of the common rock-forming minerals.

3. Into what kinds and classes are rocks divided? What kinds are most common in Iowa?

4. What is coal? History of a coal seam? To what geological age does the coal of Iowa belong?

5. What useful minerals, besides coal, are found in Iowa? Where? In what geological formations?

6. Construct table showing, in order of age, the successive geological formations as these are recognized in North America.

7. What geological work is accomplished by rains? By rivers?

8. Geological work of glaciers? Of icebergs? Of ice in general?

9. Geological work of the atmosphere? What gases are most active in effecting geological changes?

10. What geological work is accomplished by plants and animals? Describe especially the work of marine animals.

ASTRONOMY.

1. Explain what is meant by a sidereal day, a solar day. Which is the longer?

2. What is the form of the orbits of the planets? By whom was the law of orbits discovered?

3. Explain the fact that the same side of the moon is always visible to the earth. Have we any proof of the existence or non-existence of an atmosphere upon the moon?
 4. Give the distance and dimensions of the sun. Describe a sun spot. Give a probable explanation of the source of the sun's continued heat. What is meant by the solar parallax?
 5. Explain the cause of and the difference between a total and an annular eclipse.
 6. What two great circles determine the position of the equinoxes? How would you explain to a student how to locate the vernal equinox?
 7. Describe a comet? Does the same comet ever reappear after receding from the sun?
 8. What are the asteroids? Give an explanation of meteorites.
 9. Give a brief description of the refracting telescope.
 10. Outline briefly the nebular hypothesis.
-

RHETORIC.

1. Write twenty lines showing the province of rhetoric and the benefits to be derived from its study.
2. Discuss the several steps to be taken in producing an essay in their proper order emphasizing their relative importance.
3. Name three marked varieties of style and show how the subject treated should influence the style.
4. Name three of the most important qualities of style and show their relative importance in different kinds of discourse.
5. In ten lines discuss the origin and utility of figures of speech.
6. What is the province of imagination in literature? In science?
7. What is poetry? Its purpose? Its form? Its style?
8. Write fifteen lines criticising rhetorically the twenty-third psalm, beginning, "The Lord is my shepherd."
9. Which is more poetical, the twenty-third psalm, or the lines, "Thirty days hath September, April, June and November," etc., and why?
10. What is fiction? A novel? A romance? An epic poem? Name a good example of each in English or American literature.

STATE CERTIFICATE.

READING.

1. (a) Name some of the common defects in articulation and their remedies. (b) Suggest voice and tone training for oral reading.
 2. How may more satisfactory results in oral reading be secured?
 3. Discuss the value of Irving's sketches for supplementary reading.
 4. Name five books you would recommend to an eighth grade boy for reading.
 5. Discuss the value of biography.
 6. Who wrote the following: Sir Roger de Coverly Papers, Macbeth, Bleak House, Ivanhoe, The Raven, Kenilworth, Mill on the Floss, The Ancient Mariner, The Faerie Queen, Vanity Fair.
 7. Relate an episode from a standard novel.
-

ARITHMETIC.

1. Find the cost of carpeting a room 16 feet long and 14 feet wide with carpet $\frac{3}{4}$ yard wide, costing \$1.50 a yard, if the strips run lengthwise and $\frac{1}{8}$ yard is allowed on each strip for waste?
2. My tax bill is \$162.80 which includes a poll tax of \$2. The rate of taxation is \$13.40 on \$1,000; for how much am I assessed?
3. The longitude of Sandy Hook is 74 degrees west, that of Queens-town, 8 degrees, 7 min., 30 sec., west. A steamer makes the run between these points in 5 days, 20 hours. If she passed Sandy Hook at 5 p. m. June 15, when did she arrive off Queenstown?
4. (a) A corporation sends its agent \$4,590 including commission at 2 per cent, with which to buy sugar. If 75 tons are obtained, what is the cost per pound? (b) What part of a rod is 2 feet 9 inches?
5. (a) Two ropes one 42 feet long and the other 50 feet long, are fastened 30 feet above the ground to a pole and stretched to reach two stakes on opposite sides of the pole; how far are the two stakes apart, the surrounding ground being level? (b) Which is the better investment and how much per cent, Chicago and Southern Michigan costing 60 and paying a dividend of 4 per cent, or Connecticut River costing 200 and paying a dividend of 8 per cent?
6. A and B can do a piece of work in 12 days, B and C in 9 days, A and C in 6 days; how long will it take each alone to do it?
7. A dry goods firm sold \$45,000 worth of goods in a year; 2-5 of the receipts were sales at 20 per cent profit, $\frac{1}{2}$ at 25 per cent profit, and the rest at 33 $\frac{1}{3}$ per cent profit. What was the cost of all the goods?

REPORT OF THE
GEOGRAPHY.

1. Locate the chief mineral deposits found in the United States.
2. What service does the United States weather bureau render to commerce? To agriculture?
3. What is meant by Standard Time? Why is the system necessary?
- (b) Where and what is the International Date Line? What change in reckoning is made in crossing the line?
4. Name three European countries which have large colonial possessions and a colony of each.
5. What and where is each of the following: Havana, Cairo, Rio Janeiro, Nile, Bering, Ceylon, Odessa, Panama, Yokohama, Manila?
6. In what way can the study of current events be used to develop an interest in Geography?
7. Explain the Iowa land survey.

GRAMMAR.

1. Distinguish clearly between finite and non-finite verbs by their use in sentences of your own composition. Classify sentences as to their form, giving an illustration of each.
2. Point out the logical subject and the whole predicate in each of the following sentences: (a) How close he stands to nature! (b) Bear ye one another's burdens. (c) It is base to steal. (d) There was a great deed done here. (e) Fie! A soldier and afraid.
3. Analyze: In Holland the stork is protected by law because it eats the frogs and worms that would injure the dikes.
4. Define (a) descriptive adjective; (b) dependent element; (c) phrase; (d) idiom; (e) antecedent; (f) inflection; (g) expletive.
5. Use in sentences the plurals of these nouns: (a) plus; (b) mouse; (c) sheep; (d) Miss Clark; (e) son-in-law; (f) glass; (g) trousers.
6. Parse *back* in each of the following sentences: (a) He turned his back upon us. (b) They lived in the back settlements. (c) Come back. (d) Back the wagon out.
7. Write a sentence whose subject is (a) an infinitive (b) a clause.

BOOKKEEPING.

1. Explain how the record of notes is kept. What are bills payable?
2. Explain the two methods of writing the cash book.
3. E. C. Kelly commenced cash business with a capital of \$9,000; May 2, bought for cash a house and lot, \$1800; May 3, bought for cash, 8 tons of coal \$50; May 4, bought for cash 10 bbls. pork @ \$8. May 5, paid cash for mdse. \$286.20. May 6, sold for cash 300 pounds of sugar @ 5c; 4 bbls. pork @ \$9. May 8, bought for cash, mdse. \$640. May 9, paid cash for Chas. Cook's order on me \$75. Sold for cash, 115 bu. potatoes @ 50c; 10 bbls. flour @\$5.80; 40 bbls. Pork @ \$8.50. May 10, sold J. Long 50 lbs. tea @ 20c, 20 lbs. coffee @ 25c, 60 lbs. sugar @ 5c. May 11, paid cash for drayage \$16.75. May 12, paid cash for clerk hire \$40. Write up the cash book and give the cash balance.
4. When should the expense account be credited? Under what conditions would the expense account show a gain?
5. Write an order. What are the liabilities of a firm? When is a firm just solvent and when insolvent?

PHYSIOLOGY.

1. Give the structure and functions of cartilage and connective tissue.
2. Discuss the red and the colorless corpuscles and state the cause for the clotting of blood.
3. Discuss the ileo coecal valve, the peritoneum and mesentery and pleura.
4. Discuss the structure of perspiratory glands; also the function and regulation of perspiration.
5. State the effects of alcohol and tobacco on the heart and on the stomach.
6. Discuss reflex action as to character, functions and centers.
7. Discuss short sight, long sight and astigmatism as to causes and remedies.
8. Discuss consumption as to the character of the disease, preventives and treatment.

U. S. HISTORY.

1. Discovery of Mississippi River and early explorations of Mississippi Valley.

2. Articles of Confederation, adoption, character, defects, state of country under them.
3. Mexican War, causes, leaders, two important battles, results.
4. How were the funds obtained by national government to meet expenses of War of Secession?
5. Account of battle of Gettysburg.
6. Sherman's march to the sea.
7. What were the points at issue in the presidential election of 1868?
8. Oklahoma.
9. In what way has the following territory been acquired: Iowa, Alaska, Florida, Texas, Illinois?

ALGEBRA.

1. Factor and find H. C. F.

$$x^3 - 8x^2 + 7x - 18, x^2 - 8x + 12$$

2. A number of three digits is in value between 400 and 500, and the sum of its digits is 9. If the digits be reversed, the resulting number will be $\frac{36}{47}$ of the original number. What is the number?

3. Divide

$$(a.) \quad 6x^{\frac{1}{2}} + 9x^{\frac{1}{2}} - 2x^{-1} - 13 \quad \text{by} \quad 3x^{\frac{1}{2}} + 2x^{\frac{1}{2}} - 5.$$

- (b.) Solve

$$\begin{cases} x - y = 3 \\ \frac{1}{y} + \frac{1}{x} = \frac{1}{8} \end{cases}$$

4. Find the value of $(1-ax)(1-bx)$

$$\left\{ 1 - (a+b)x \right\} \text{ when } x =$$

$$\frac{1}{a} + \frac{1}{a} \left\{ \frac{1}{a+b} - \frac{1}{a+b} \right\}$$

5. (a). Find square root of

$$19 + 8\sqrt{3}.$$

- (b.) Solve

$$\begin{cases} \frac{x+y+3}{x-y-3} = -1\frac{1}{2} \\ \frac{x-y-3}{x-y+3} = -2 \end{cases}$$

6. Solve

$$\sqrt{x-1} + \sqrt{x-4} = \sqrt{x-1}.$$

7. Separate the number 3696 into two factors such that if the smaller is diminished by 4 and the larger increased by 7 their product will be the same as before.

BOTANY.

1. What is the difference between a spore and a seed? Name two spore-bearing and two seed-bearing plants.

2. Define angiospermous plants. Consider especially the structure of the flower and stem. Give example.

3. Define pollination. What are the three principal agencies concerned in it? State the general character of the flowers fertilized by the aid of each of these three agencies.

4. What are the functions of the calyx and corolla? Are both these parts present in all flowers?

5. Define assimilation and respiration in plants. Under what conditions may each take place? What is the result?

6. Why are the anemone, butter cup, columbine, and hepatica classed together. The apple and the cherry? The oak and the hazel?

7. In what way does topography affect the distribution of plants? Illustrate by examples.

PHYSICS.

1. An engine raises uniformly 20 lbs. water 300 ft. every minute. What is its horse power? What is the momentum of the water? Its kinetic energy?

2. Describe a barometer and its action.

3. Define the latent heat of fusion. What seemed to justify the term latent heat?

4. What is a beat in music? How many beats per sec. will be heard when two tuning forks make 250 and 256 vibrations each per sec.?

5. Show by diagram the position of the image of an object (an arrow) which is placed in front of a plane mirror.

6. Give the law of magnetic attraction between opposite and like poles. Give the law of electrostatic attraction between like and unlike electric charges.

7. State how an electric current is used to produce a magnet.

REPORT OF THE
DRAWING—REGULAR.

1. Draw a group of objects which will show your knowledge of perspective.
 2. What relation does drawing sustain to other studies?
 3. What does a child gain from the study of pictures? How do you conduct a picture study lesson?
 4. Why should drawing be taught in public schools?
 5. Give a list of type forms which should be used in drawing classes.
 6. Why is mass drawing used? Draw a group of objects in mass.
 7. Illustrate a quotation.
-

CIVIL GOVERNMENT.

1. When did permanent immigration into Iowa begin? What are some of the oldest towns in the state? When did Iowa become a territory? A state? Name some of the early governors.
 2. Describe the various school corporations. By whom are they organized? When are school officers elected? Town and city officers? State officers?
 3. (a) What is the biennial election amendment? (b) When was it passed? (c) How may the constitution be amended?
 4. By whom and for how long are the following officers elected or appointed; (a) Secretary of State; (b) State Senator; (c) County Supervisors; (d) Sheriff; (e) Mayor; (f) Secretary of School Board; (g) President of the State Normal School; (h) President of State University; (i) Board of Control; (j) Railway Commissioners.
 5. Give arguments for and against choosing United States Senators by the people.
 6. What is a "pocket veto?"
 7. Name five powers denied to the several states by the constitution.
-

ECONOMICS.

1. Can a knowledge of Economics aid in any way in the solution of civic and industrial problems? How?
2. What is a marginal utility? What is the relation between the marginal utility and the supply of a commodity?

3. What is debased money? Flat money? Inflated currency? Give Gresham's Law. How may credit increase the volume of business without increasing the volume of money? Illustrate.

4. Define capital. Name and illustrate two kinds of capital. What represents a farmer's capital? Are a workman's clothing and food capital? Why?

5. Has the present extensive system of advertising any economic importance? Discuss fully.

6. What is the distinction between salaries and wages? Do practicing physicians and attorneys receive salaries or wages for their services?

7. Why would not a protective tariff be as beneficial to Holland as to the United States? Why is it necessary to revise tariff schedules frequently?

MUSIC—REGULAR.

1. Why should music be taught in the public schools? (Discuss.)

2. How much time should be given daily to music work in the grades? Where a special music teacher is employed should she be entirely responsible for the government in the room during the music period?

3. In introducing music into the upper grades and the high school what should be emphasized at first?

4. What should a child do in music during his first year in school?

5. Write the major scale in D, B flat and A flat.

6. Write the chromatic scale in the key of E.

7. Write the harmonic minor scale in C minor and B minor.

SCHOOL MANAGEMENT.

1. Name exercises which may be profitably used in memory training.

2. "The training of the power of attention is one of the most important points in education." Justify the above statement.

3. What is the place of compulsion in school discipline?

4. What special points relating to the physical well-being of the pupils should receive the teacher's careful attention?

5. Define (a) instruction, (b) organization, (c) discipline. Show their mutual relation.

6. Show how correct methods of study on the part of the pupil lead to correct habits in later life.

7. After examination papers have been marked should they be returned to the pupils? Give reason for your answer.

PSYCHOLOGY.

1. Define (a) conception, (b) judgment, (c) reasoning.

2. Define (a) attention, (b) memory. State relation between them.

3. "Observation before reasoning." Define the terms and show the necessity of proceeding as indicated above.

4. (a) What is the source of material used in imagination? (b)

Show what part imagination plays in sympathy.

5. Define (a) voluntary attention, (b) involuntary attention.

6. Show how a knowledge of psychology is valuable (a) in arranging a course of study; (b) in devising methods for teaching any particular subject.

7. State and illustrate the relation of memory to creative (or constructive) imagination.

SCHOOL LAW.

1. Give five duties of the State Superintendent. What is his term of office? His salary?

2. How is a new School Board organized? When? Name four duties of the President of the Board.

3. For what reasons may a pupil be expelled by the Board? Name the three kinds of school funds.

4. State five important powers of School Boards.

5. What legal steps are necessary to procure free text-books in a school corporation?

6. In case a teacher is discharged by the Board, to whom may an appeal be taken? Give the process.

7. To whom must the teacher make reports? What must these reports show?

EDUCATIONAL THEORIES.

1. What is the purpose of manual training in our schools?
2. Name two books that have had a marked effect upon education and give main features of one of them.
3. What are the principal points of difference between ancient and modern education?
4. Describe the educational work of Froebel and his influence on subsequent education.
5. Give educational doctrine advanced by Herbart.
6. Tell what Horace Mann did for the schools of the United States.
7. Give an account of the beginning and development of sense training in primary teaching.

PRIMARY STATE CERTIFICATE.

CHILD PSYCHOLOGY.

1. Name the mental powers in the order of their development. Which of these may be said to be more prominent in childhood from four to ten years of age?
2. Name three marked characteristics of childhood aside from the manifestation of the mental powers named in No. 1.
3. Can you distinguish between "moral faults" and "intellectual faults" in children?
4. Describe the emotion of fear as it exists in children and give some directions as to its treatment.
5. Discuss the fascination which color, tone, form and rhythm have for children.
6. Do children reason? Explain.
7. Is a 6-year-old child a selfish or a social being? Explain.

REPORT OF THE SCHOOL MANAGEMENT.

1. Why does a primary teacher need special professional training for her work?
 2. Give five objects of the recitation.
 3. How much individual help is it wise for the teacher to give pupils?
 4. Give five suggestions for the proper heating and ventilating of the schoolroom.
 5. What are some of the bad consequences of disorder in school? Name four elements of governing power in the teacher.
 6. Name five forms of hand work suitable for primary grades. What is the value of such work?
 7. Name some of the most prominent interests of children and show how the teacher may utilize these interests in her class work.
-

HISTORY OF EDUCATION.

1. What principles characterize modern education? Give the time when and by whom advocated.
 2. Who wrote "Emile?" What doctrines in it were new for education?
 3. What use did Froebel make of play in teaching? Why?
 4. Give main points in the present school system of France.
 5. Write a short sketch of the life and work of Horace Mann.
 6. What benefit do you expect to derive from a study of History of Education?
 7. What is our National Bureau of Education? Who is its head? How does it aid in educational work?
-

SCHOOL LAW.

1. What are the three kinds of school corporations? How many directors constitute the Board in each?
2. What was the origin of the "permanent school fund" in Iowa? On what basis is the interest on this fund apportioned?
3. On what school questions may women vote? In whom does the law vest the power to fix teachers' wages?

4. What two important restrictions on the power of the teacher to dismiss a pupil from school?
 5. Give four powers of the School Board with reference to school-houses and school property.
 6. Give the duty of the teacher in regard to keeping a daily register and making reports.
 7. Name the five provisions of the school law that you think it most important for a primary teacher to know.
-

HISTORY OF EDUCATION.

1. Speak of the educational work of (1) Luther, (2) Francke, (3) Locke.
 2. Discuss historically the origin and growth of the idea of the public school supported by the state for all children.
 3. In what way has the United States aided, and how is it now aiding, the several states in their educational work?
 4. Write of the work of Pestalozzi at Yverdon.
 5. To what extent have we compulsory education in Germany, France, England, United States, Iowa? What reasons are given for it?
 6. In what ways did Horace Mann benefit the schools of the United States?
 7. What is Herbert Spencer's estimate of the value of music and drawing in the course? What reason does he give for this estimate?
-

DRAWING—PRIMARY.

1. To what powers of the mind does drawing appeal?
2. Draw a group of two or more objects resembling a cube and cylinder and state principles to be observed in good grouping.
3. How would you give a lesson in clay from animal subjects? What should be the aim of such a lesson?
4. What kind of subjects should be given in primary grades in picture study? How would you relate these to the school year?
5. Mention some story which may be illustrated by the children. Make a drawing which you would use in illustrating this.
6. Make a constructive (mechanical) drawing of a square prism 2 by 2 by 4 showing three views.
7. Make a landscape drawing in two or three tones.

REPORT OF THE

PLANT STUDY.

1. Name a plant of common occurrence and of general interest in blossom in April, one in June, one in September.
2. In what way are some plants dependent upon insects? Name one or more such plants and the insects upon which they depend.
3. What are cotyledons? Ovules? Sepals? Root stalks? Petioles?
4. Name some plants that have bulbs or tubers. That have seeds.
5. Give a list of ten trees which you know and give that for which each is especially valuable to man.
6. Briefly state the method of conducting plant study in primary grades which you would employ.
7. Why are some plants rarely infested by insects?

MUSIC—PRIMARY.

1. Write all the notes and rests in common use. Illustrate three different kinds of time and locate the accent in each.
2. Write the major scale in D flat and B.
3. Write the minor scale in F minor and C minor.
4. Write the chromatic scale in the key of E.
5. Give three common faults in teaching primary singing and tell how they may be corrected.
6. Name the characteristics of a good rote song and tell how to teach it to a first primary grade.
7. How would you teach the scale to a primary class? Give a device for class work in ear-training.

PRIMARY METHODS.

1. Write a short plan on the development of one-half, involving oral and written expression.
2. State the characteristics of good primary arithmetic.
3. What improvements should be made in methods of teaching reading.
4. How would you make reading appeal to the child's emotional nature?
5. How should incorrect habits of speech be changed?
6. Tell how you would make nature study the basis for composition work.
7. How can we make number work less formal?

Two year state certificate questions for first county certificate are used.

IOWA TEACHERS' READING CIRCLE.

The year 1905-06 is the sixteenth year of the existence of the Iowa Teachers' Reading Circle. Its membership comprises teachers in almost every county in the state, and one or more of the books on the list is being studied by all grades of teachers in the city schools to the beginning teacher in the country.

The function of the Reading Circle is well shown by this range of membership, hence it is seen that it is performing a work that is not and cannot be performed by any other existing agency.

PURPOSE.

The purpose of the Teachers' Reading Circle is to provide for the teachers of the state a uniform course of reading and study for home work along professional and general culture lines. Accordingly, there is adopted each year, by the State Reading Circle Board, a set of two books for the year's readings. While the membership is purely voluntary, it should include all the teachers of the state. The course will adapt itself to teachers of all grades in country or in city schools. Neither teachers nor school officers can afford to ignore the recognition which this organization has received, or its claims upon the great body of Iowa's educational workers.

PLAN OF WORK.

This contemplates much more than a rapid and casual reading of the books adopted. It means careful re-reading and study, distributed as evenly as possible throughout the year. While the work is continuous, the reading for any four years, if satisfactorily performed, will entitle the member to a diploma. This diploma should have value as indicating four years of studious advancement, which cannot fail to add to the teacher's ability and efficiency.

REPORT OF THE MEMBERSHIP.

The Reading Circle membership is made up of teachers in every grade of public school work and while the membership is purely voluntary, a number of teachers in almost every county in the state have enrolled, and are pursuing the work.

MANAGEMENT.

The Reading Circle is under the control of a board of seven members chosen by the county superintendent's section of the Iowa State Teachers' Association, except the state superintendent who is *ex-officio* a member, and also its president.

This board meets annually and selects a course of reading for the teachers of the state. The course aims to include always one or more books on professional lines and one or more on general culture.

The books adopted for 1905-06 are:

For professional study, Putnam's Psychology, American Book Company, 521-531 Wabash Ave., Chicago, \$1.00.

Painter's History of Education, D. Appleton & Co., Wabash Ave., Chicago, Ill., \$1.00, and

Dewey's Lessons on Morals, Hindo, Noble & Eldredge, New York City, 40 cents.

BOARD OF MANAGERS FOR 1905-6

Hon. John F. Riggs, President, Des Moines, Iowa.

Supt. Jos. E. Vance, Marion Iowa.

Supt. John P. McKinley, Treasurer, Sibley, Ia.

Supt. A. M. Deyoe, Garner, Iowa.

Supt. Lora L. Richardson, Mt. Ayr, Iowa.

Supt. Mary E. Hostetler, Marshalltown.

E. J. Hook, Secretary, Decorah, Iowa.

BOARD OF EDUCATIONAL EXAMINERS.

John F. Riggs, ex officio, President Des Moines
 George E. MacLean, ex officio Iowa City
 Homer H. Seerley, ex officio Cedar Falls
 Owen J. McManus Council Bluffs
 Maria M. Roberts Ames
 Viola H. Schell, Secretary Des Moines

STATE DIPLOMAS.

(Regular Examination Friday and Saturday following Thanksgiving.)

I. GENERAL REQUIREMENTS.

1. In every case the applicant must have held an Iowa state certificate and have taught under the supervision of this board at least three years before applying for the state diploma, a life certificate.

2. Every candidate will be required to file the following credentials:

- a. Documentary evidence from standard reputable educational institutions certifying to the special scholarship and training of the applicant.
- b. Documentary evidence showing the standing and ability of the applicant as an educator. This evidence should cover recent work.
- c. He should also refer to at least three persons of good scholarship and professional success, who are engaged in educational work, and who can vouch for his success and character.
- d. Credentials should be original, of recent date, of specific character and addressed to the state board of educational examiners.

II. SPECIFIC REQUIREMENTS.

1. In his registration blank, the candidate must certify that he has taught or studied all the branches that are required by law for the state diploma.

2. He must give, in detail, the places where he has done educational work.

3. He must file in his own handwriting, reasonably complete theses upon topics assigned from the following subjects: trigonometry, chemistry, political economy, general history, and English literature. In every case these theses must be fully outlined, and be accompanied by a bibliography of the topics considered.

4. The theses will be marked by such persons as the board may designate on the following points:

- a. Correct use of the English language.
- b. Choice and arrangement of subject-matter.
- c. Thought and expression.
- d. Originality and research.
- e. General appearance of the manuscripts.

III. EDUCATIONAL REQUIREMENTS.

1. State certificate subjects as required by law and evidenced by the state certificate.

2. Formal written examination in geometry, zoology, geology, astronomy and rhetoric. The board of examiners may meet the candidates in an oral examination in any or all of the subjects mentioned.

3. In addition to the above, an oral examination will be given in psychology, history of education and school supervision.

REGULAR STATE CERTIFICATES

For the information of those desiring to become candidates, and to encourage the professional preparation of teachers, the board has classified candidates for state certificates under the following heads and established the following requirements:

CLASSIFICATION OF CANDIDATES.

1. First certificate.
2. Renewal of certificate.
3. Subsequent renewals.

1. REGULATIONS GOVERNING APPLICANTS FOR FIRST CERTIFICATES.

I. CLASSES OF CANDIDATES.

- a. Graduates of higher institutions of learning.
- b. Graduates of state normal schools.
- c. Graduates of good schools where they have pursued a two years' course in didactic subjects.
- d. Other candidates.

a. Graduates of the College of Liberal Arts of the State University who have pursued in addition to the course in psychology, a pedagogical course of at least one year, and graduates of other liberal arts colleges with equivalent courses approved by the board, will be admitted to the examination upon filing certified statements given by the president or registrar of their graduation, and of their record in the pedagogical course.

Note—It is important for all applicants for state diplomas to remember that great value will be attached to the use of the English language in all the papers filed as part of the scholastic examination.

Those graduates of the state university or other colleges having equivalent approved courses of study, who have not had pedagogical work as stated above, will be admitted to the examination upon proof of one year's successful experience in teaching.

b. Candidates who are graduates of the state normal school or of other schools requiring equivalent courses approved by the board, giving one year of special training in a well organized training school, will be admitted to the examination upon filing certified statements given by the president or registrar exhibiting those facts.

c. Candidates who are graduates of good schools, whose courses of study are approved by the board, and who have pursued a two years' course in didactic subjects, consisting of school management, elementary psychology, principles of education and methods of instruction, will be admitted to the examination on making proofs of one year of thirty-six weeks of successful experience. When in addition to the above didactic course, such candidates have also had a year of special training in a well organized training school, they will be admitted to the examination without further qualification.

d. Other candidates will be admitted to the examination on filing official letters addressed to the board by one or more county superintendents and city superintendents, or other professional educators, including statements from the school boards under whom the candidate has taught, certifying to teaching covering at least two years of thirty-six weeks each of successful experience.

II. DOCUMENTARY EXAMINATION.

1. Each candidate proving experience must file the following credentials as the official proofs of being qualified to hold a state certificate:

- a. Official letters addressed to the board, by one or more county superintendents and city superintendents, or other professional educators, certifying to the success of the applicant in government and instruction. The work thus commended must have been done under the person's supervision who certifies to his excellence or he may so certify from his personal knowledge of the candidate's character and success.
- b. Statements from the school boards for whom the candidate has taught, certifying to teaching covering at least two years, of thirty-six weeks each, in which good and successful service was rendered. Credentials should be original, explicit in character, of recent date, addressed to the state board of educational examiners.
- c. County superintendents, city superintendents, professors in normal schools and colleges holding positions in the state of Iowa, will be admitted to the examination on proof of character alone.
- d. To be assured that the candidate is successful in instruction and government, the board reserves the right to investigate until all doubt is removed.

III. PLAN OF THE EXAMINATION.

1. **Preliminary.** The application blank properly filled out, the fee of three dollars, and the credentials required must all be filed with the president of the board. Consideration will then be given to the case and notification sent to the applicant previous to the examination

2. **Place of Examination.** The candidate receiving this formal notification of admission to the examination, is authorized to present the same together with other correspondence from the board to the examiner in charge of any stated or special examination held by the board.

3. **Character of the Examination.**

- a. Oral examination in subjects selected by the examiner. This work to cover not more than one half of subjects required.
- b. Written examination to include the work in subjects omitted in the oral examination.
- c. Professional examination in school management, elementary psychology, school law, methods of instruction and the educational theories of Rousseau, Pestalozzi, Froebel, Herbart and Herbert Spencer.

4. Syllabi for school management school law, elementary psychology, methods of instruction and drawing may be found on pages 11 to 13 of this circular.

5. The examination will be both oral and written at the discretion of the examiner in charge, not more than one half being oral. The following schedule may be expected with modification as circumstances may require:

First Half Day.

Oral.	Written.
Civil Government.	English Grammar.
Economics.	Arithmetic.

Second Half Day.

Oral.	Written.
Geography.	Algebra.
Music.	Drawing.
Reading.	Botany.

Third Half Day.

Oral.	Written.
U. S. History.	Physics.
Physiology.	Bookkeeping.

Fourth Half Day.

Professional examination, both oral and written. See "Character of Examination" page 5.

6. The examination in penmanship, orthography and English will be determined by the written work.

IV. **Fees.** The examination fee is \$3, one-half of which is returned in case of failure.

2.—RENEWAL OF CERTIFICATES.

I. PROOFS REQUIRED.

- a. The candidate must file letters from superintendents or other prominent educators that certify to the present success in instruction and in government, and to the fact that his present physical condition and mental and moral character are still such as to justify the board in granting him this renewal.
- b. He must also show by official letters from school boards for whom he has worked, the fact of his being successful as an instructor and as a disciplinarian under the expiring certificate.

Holders of state licenses to teach, desiring a renewal of the same, should file with the board an application, credentials, and fee of \$3, at least three months before the expiration of their certificate, in order that there may be sufficient time to issue a renewal before the expiration of the certificate. At the discretion of the board candidates who have taught successfully for five years under its supervision may obtain a renewal upon writing a satisfactory thesis upon a subject assigned by the board. In all cases the board reserves the right to require a full and complete examination. The thesis must in all cases be in the handwriting of the applicant, and must show professional study and investigation.

II. **Examination Required**—Unless otherwise decided, the candidate must appear at the time assigned and take such examination as the board may think necessary, but, where personal knowledge or acquaintance of the board with the applicant may permit, and where the first examination was good an original essay on an educational topic, assigned by the board, may be substituted for personal presence at the examination. This paper must be in the handwriting of the applicant, and must show professional study and investigation.

III. County superintendents, city superintendents, professors in normal schools and colleges holding positions in the State of Iowa, will be required to make proof of character alone.

3. SUBSEQUENT RENEWALS.

Subsequent renewals may be granted upon filing the credentials mentioned in I.

PRIMARY STATE CERTIFICATES.

The **Primary Teachers' Certificate** is intended for primary teachers as a recognition of professional skill and successful experience. The holder of such a certificate will be authorized to teach in first, second and

third grades, in any public school in the state, for a period of five years. The fee, as fixed by law, is \$3, one half of which is returned in case of failure.

I. Documentary Examination—The following testimonials and credentials are required as evidence of success in primary teaching and of good character as a person.

1. Official statements addressed to the board of examiners from the present school board and from other boards certifying to the service of the applicant as teacher in first, second or third grade work for the period of two years or thirty-six weeks each.

2. Professional statements from county superintendent, city superintendent or village principal under whose supervision the applicant has worked, certifying to the particular and professional success of the applicant as a teacher of the first, second and third grade work.

3. Candidates who are graduates of good schools, whose courses of study are approved by the board, and who have pursued a two years' course in didactic subjects, consisting of school management, elementary psychology, principles of education, and primary methods of instruction, will be admitted to the examination on making proofs of one year of thirty-six weeks of successful experience in primary teaching. When, in addition to the above didactic course, such candidates have also had a year of special training in a well-organized primary training school, they will be admitted to the examination without other qualification. Candidates who are graduates of higher institutions of learning whose courses of study are approved by the board, and who have pursued during the junior or senior year of their course a year of pedagogical study, consisting of history of education and primary methods, will be admitted to the examination.

II. Scholastic Examination—To insure that the applicant has sufficient scholarship to be granted a primary teachers' certificate, the following things are required:

1. Such an examination in the branches, orthography, reading writing, arithmetic, geography, grammar, history of the United States, and physiology and hygiene, as in each individual case may be necessary to insure good scholarship in the applicant. In cases where the applicant is the holder of an excellent county certificate in force in regard to these branches, this scholastic examination may not be necessary. By sending to the president of the board the certificate, with grades, and any other documentary evidence that may assist in making the necessary proofs, this part of the examination can be determined before date of appearance before the board.

2. The examination in English will be determined by a thesis of at least one thousand words.

III. **Professional Examination**—The following subjects will constitute the professional examination required for the present year: Psychology of the child, school management, history of education, school laws of Iowa, primary methods, vocal music, physical culture, drawing and plant study.

IV. **Plan of Examination**—As preliminary, the application blank properly filled out, the fee of \$3, and the credentials mentioned in I and II, must be filed with the president of the board, to receive consideration and be approved before the written examination is given.

V. **Schedule of Time Granted**

First Day.

P. M.—1:30 to 5:00—Scholastic examination in case board requires same. See section II, note 1, in this circular.

Second Day.

A. M.—8:00 to 9:30—Psychology of the child. School management.

9:30 to 12:00—History of education. Schools laws of Iowa.

P. M.—1:30 to 4:00—Primary methods. Drawing. Plant study.

4:00 to 5:00—Vocal music. Physical culture.

VI. **Renewal**—See “renewal of certificate” and “subsequent renewals,” pages 6 and 7.

TWO YEAR STATE CERTIFICATES.

The law authorizing the state board of educational examiners to issue two-year state certificates was enacted by the Twenty-ninth General Assembly, and is as follows:

Chapter 115, section 3. **Certificates—fee.** Graduates of approved accredited schools who shall pass the required examination for a two years' certificate shall receive from the state board of examiners a certificate for two years, which may be renewed under such rules as said board may prescribe. Applicants for a certificate shall pay a fee of \$2 one-half of which shall be returned in case of failure.

The purpose of this law is to raise the educational standard for teachers in general, and especially for teachers of rural schools. As recognition of the work done and satisfactory examination passed, this certificate for two years, valid in any county in the state, is issued.

I. **Plan of Examination.**

1. **Preliminary**—The application blank properly filled out, the fee of \$2, and certificate of graduation should be filed with the president of the board previous to the examination, but may be presented to the examiner in charge at the time of the examination.

2. Scholastic examination—This examination embraces those branches required for a two-year county certificate, as follows: orthography, reading, writing, arithmetic, geography, grammar, history of the United States, didactics, physiology and hygiene, including special reference to effects of alcohol, stimulants and narcotics, elementary civics, elementary algebra, elements of physics, elementary economics, and music.

II. **Eligibility.** Only graduates of accepted courses of accredited institutions are eligible to take this examination.

III. **Fees.** The examination fee is \$2, one-half of which will be returned in case of failure.

IV. **Renewal...** See "renewal of certificates" and "subsequent renewals," pages 6 and 7.

SPECIAL STATE CERTIFICATES.

The law authorizing the educational board of examiners to issue special state certificates limits that authority to the following subjects:

Music.

Penmanship.

Drawing.

While the candidate must possess complete and technical knowledge of the special branch for the teaching of which a certificate is desired, some general education and culture will be required, as a certificate cannot be granted on account of proficiency in one subject only.

The holder of a special certificate will be authorized to teach the branch specified in any public school in the state for a period of five years. The fee as fixed by law, is \$3 one-half of which is returned in case of failure. Certificates will be issued to the same person in more than one branch, but the fee of \$3 must be paid for each, as no special certificate will authorize the holder to teach more than one subject.

I. **Documentary Examination**—The following testimonials and credentials are required as evidence of success as a teacher of a particular subject, and of a good moral character as a person:

1. Official statements from school boards; certifying to the service of the applicant as a teacher of the subject in which certificate is asked for a period of two years, of thirty-six weeks each.

2. Candidates who are graduates of good secondary or normal schools, and graduates of higher institutions of learning, may be admitted to examination upon filing certified statements given by the president or registrar of their graduation. It is to be understood, however, in all cases of reduction of time, that candidates have pursued scholastic and pedagogical courses approved by the board.

3. Professional statements from city or county superintendents, village principals, or other professional educators, under whose supervision the applicant has worked, or who have personal knowledge of the work done, certifying to the particular and professional success of the applicant as a teacher of the specified branch.

II. Preliminary Examination.—Proficiency in English will be determined by a thesis of at least one thousand words, subject to be assigned in harmony with the kind of certificate sought by the applicant.

III. Professional Examination—An examination will be required in each subject both upon knowledge of the branch itself and upon the methods of teaching it.

IV. Plan of Examination—As preliminary, the application blank properly filled out, the fee of \$3, and the credentials mentioned above, must all be filed by the candidate with the president of the board, in order to be admitted to the written examination.

V. Renewals—See “renewal of certificate” and “subsequent renewals,” pages 6 and 7.

Note—All correspondence for special certificates should be addressed to the president of the board.

General Suggestions to all Candidates.

1. An examination for state certificate must be had before there can be an application for a state diploma. A teacher must do work under the supervision of this board for three years under a state certificate, before an application for a diploma can be considered.

2. Applicants will bear in mind that the possession of a state certificate, a primary or special teacher's certificate, or a state diploma, will not in any sense lessen their duty to comply with all the rules and requirements of the county superintendent of the county in which they are teaching.

3. Candidates are advised to arrive early at the place of examination, as no allowance can be made for delayed trains or for poor physical and mental condition, caused by illness or loss of sleep.

4. All necessary paper, pens, and pencils will be furnished each candidate at the time of the examination.

5. Lists of old questions are not sent out to applicants, as such questions are no guide to the next examination.

6. The law governing this board can be found in sections 2628-2634 of the code, and amendments enacted by the Twenty-seventh Twenty-eighth and Twenty-ninth General Assemblies.

7. Applicants for state, primary state, two-year state, and special state certificates may be admitted to any examination fixed by the board. Diploma applicants will be given special examinations at times fixed by the board.

8. Remittances must be made by draft or money-order and made payable to John F. Riggs, President Board of Examiners and addressed to him at Des Moines, Iowa.

9. The law renders it impossible for the Board of Examiners to indorse, duplicate, or give credit for scholarship to holders of certificates or diplomas of educational institutions or other states.

Note as to Correspondence—In order to facilitate office work, graduates of the state normal school, and the state university, conduct their business correspondence regarding diplomas, and state certificates, with the presidents of their respective institutions.

All other official correspondence for the board must be with the president.

JOHN F. RIGGS,

President Board of Educational Examiners.

FIGURE 8
Rural School House, District No. 7, Grinnell Township,
Poweshiek County.

FIGURE 9.
District No. 8, Grinnell Township, Poweshiek County.
Last day program and fair.

Hall of Liberal Arts—State University of Iowa, Iowa City.

High School Building. Mason City. Cost of building about \$70,000.

Manual Training—Iowa State Normal School, Cedar Falls.

Manual training, Montezuma, Public Schools.

Domestic Science, Iowa State College, Ames.

Figure 1.

**Underwood School Building. Built and furnished at a cost of less than \$5,000.
For floor plans see figures 10, 12 and 14.**

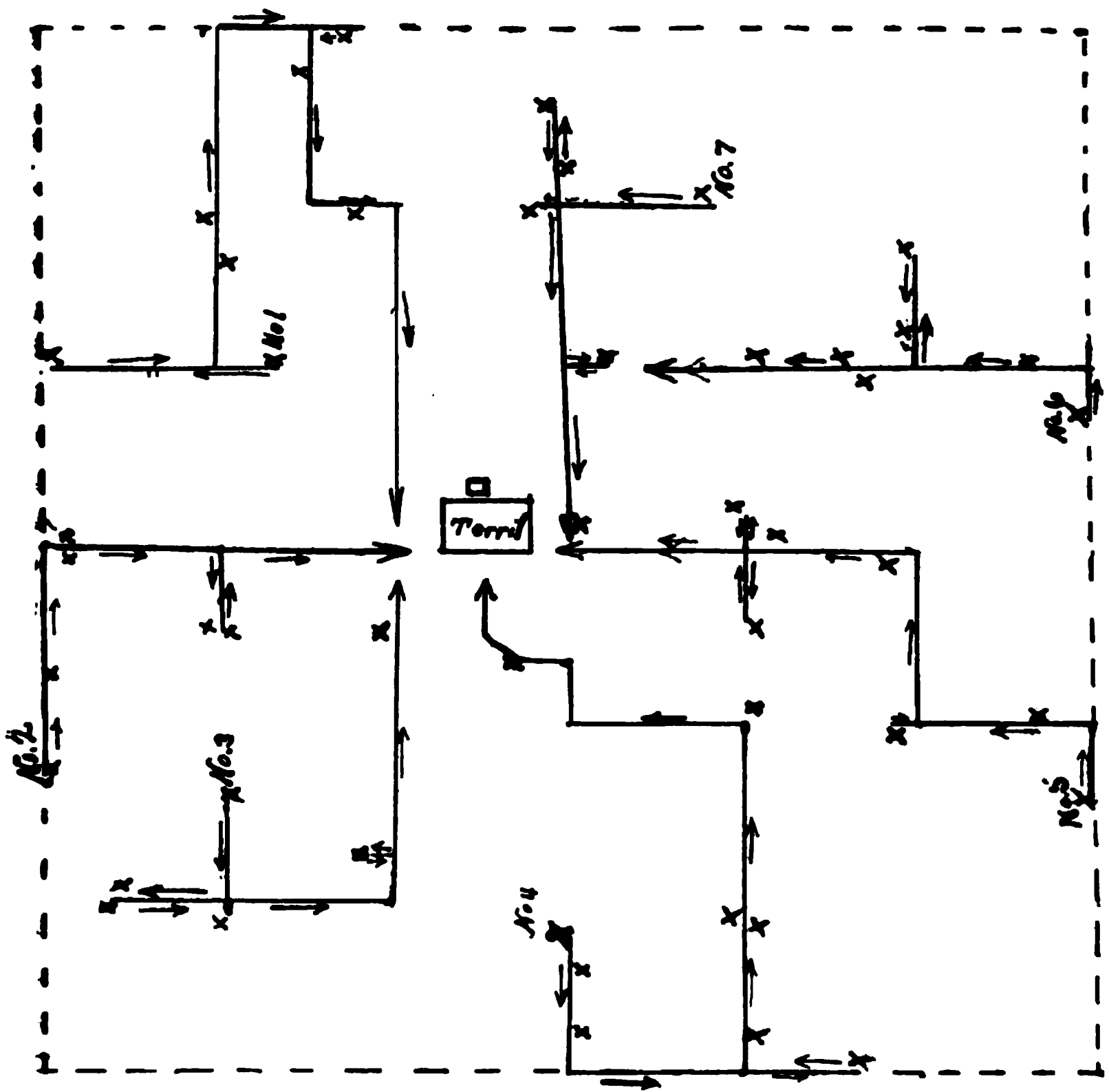


FIGURE 16.

Transportation Routes—Lloyd Township, Dickinson County.
 Numbers indicate starting places for hacks.
 X indicates homes, and
 [] indicates the central school

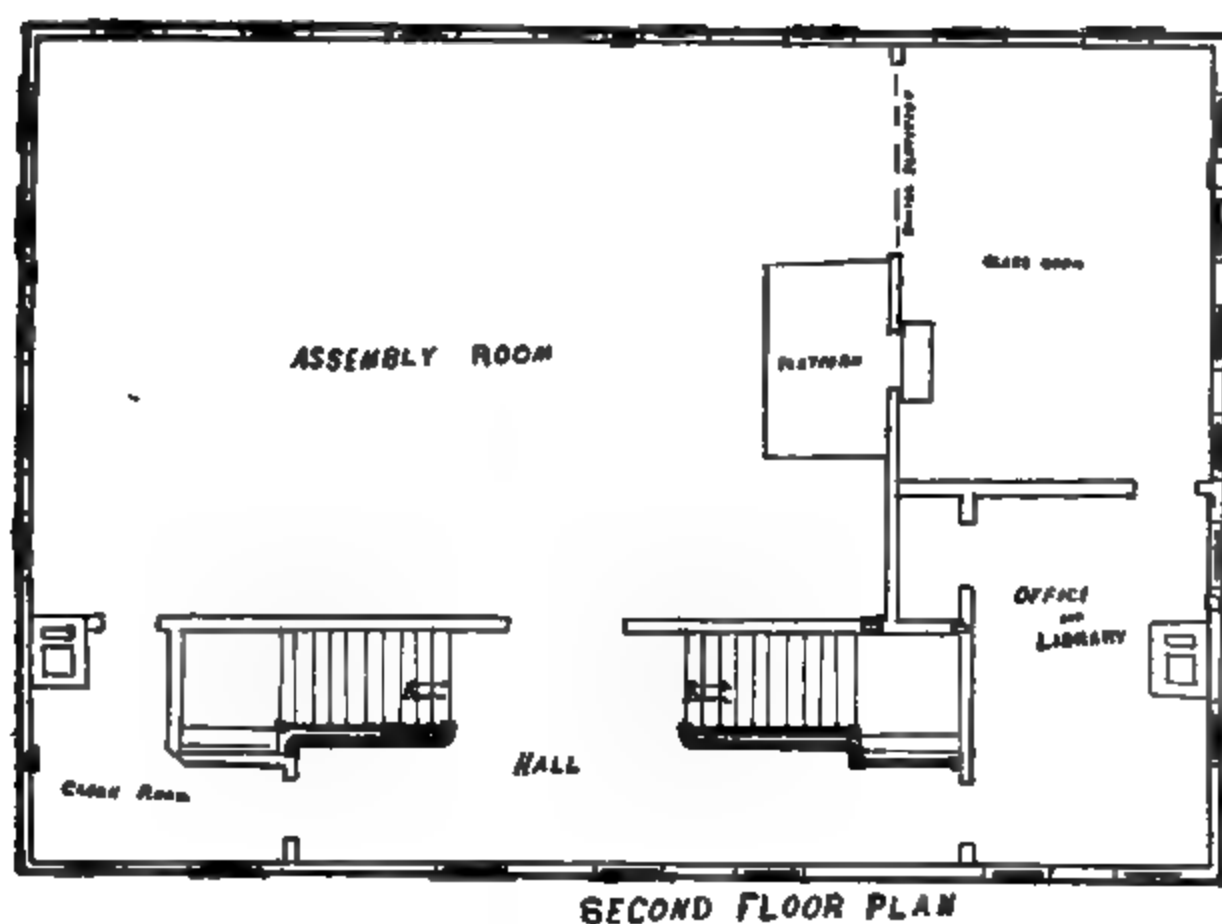


FIGURE 14.
Underwood School Building—Second Floor Plan. For building see figure 1.

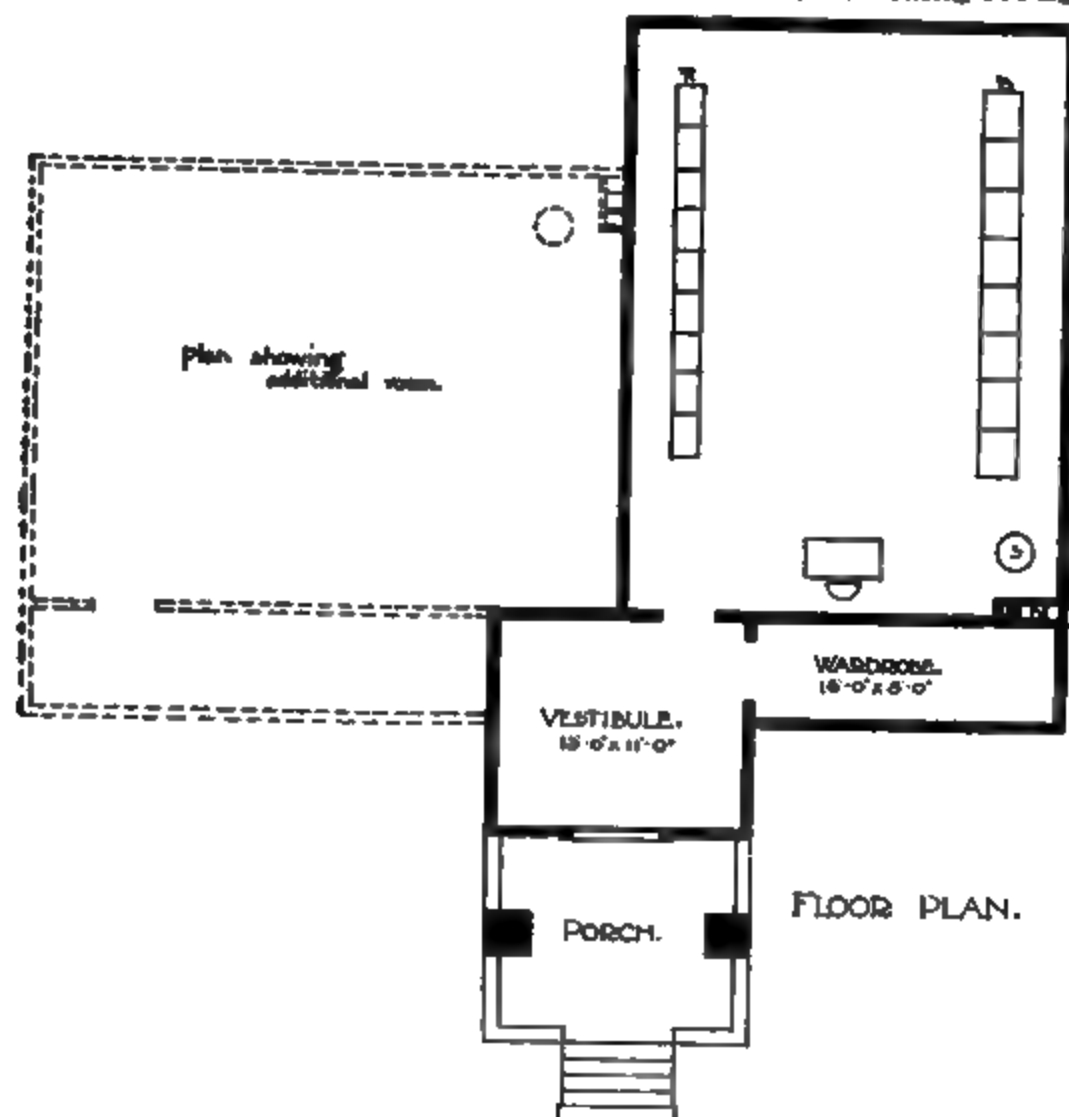


FIGURE 15.
Floor plan of one room school building so constructed that a second room may be added. For building see figure 5

Gymnasium—Iowa State Normal School, Cedar Falls.

High School Building, Davenport. Cost complete \$275,000.

New Central Building, Iowa State College, Ames.



FIGURE 6.
Rural School House, District No. 5, Grinnell Township,
Poweshiek County




FIGURE 7.
District No. 3, Grinnell Township, Poweshiek County,—Corner
of last day exhibit in the work room.

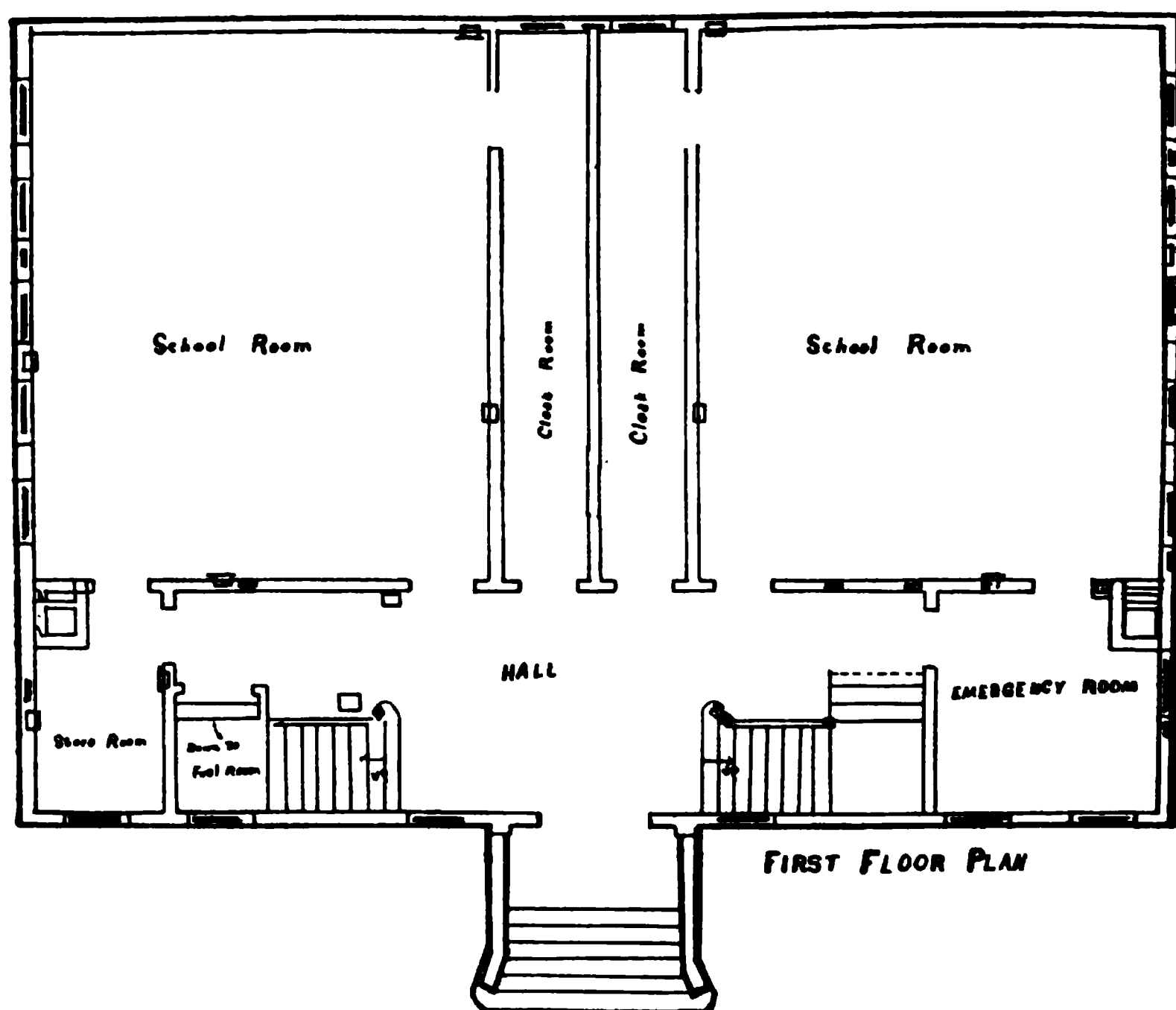


FIGURE 12.
Underwood School Building—First Floor Plan.
For building see figure 1.

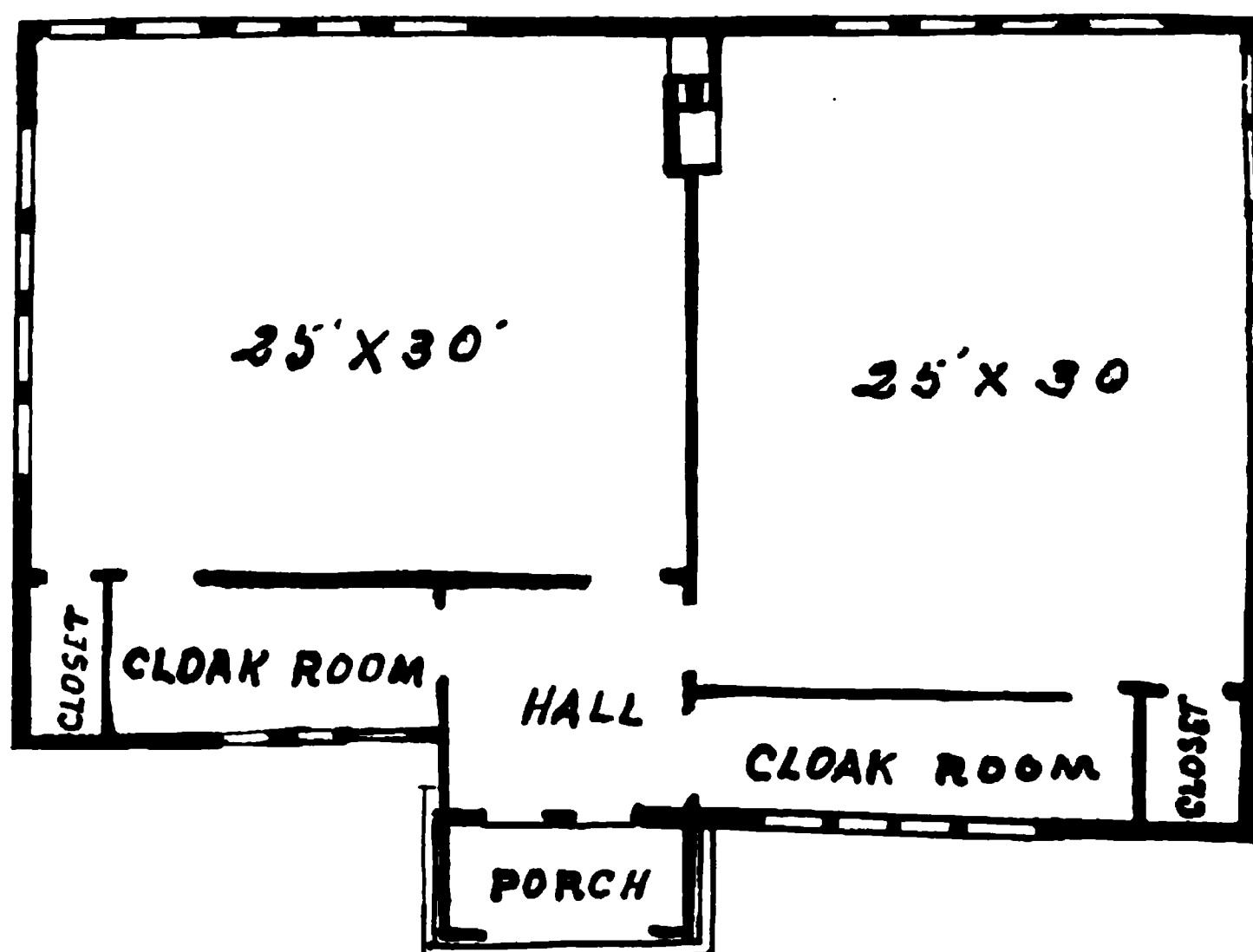


FIGURE 13.
A Two-Room School House—Floor Plan.
For building see figure 3.

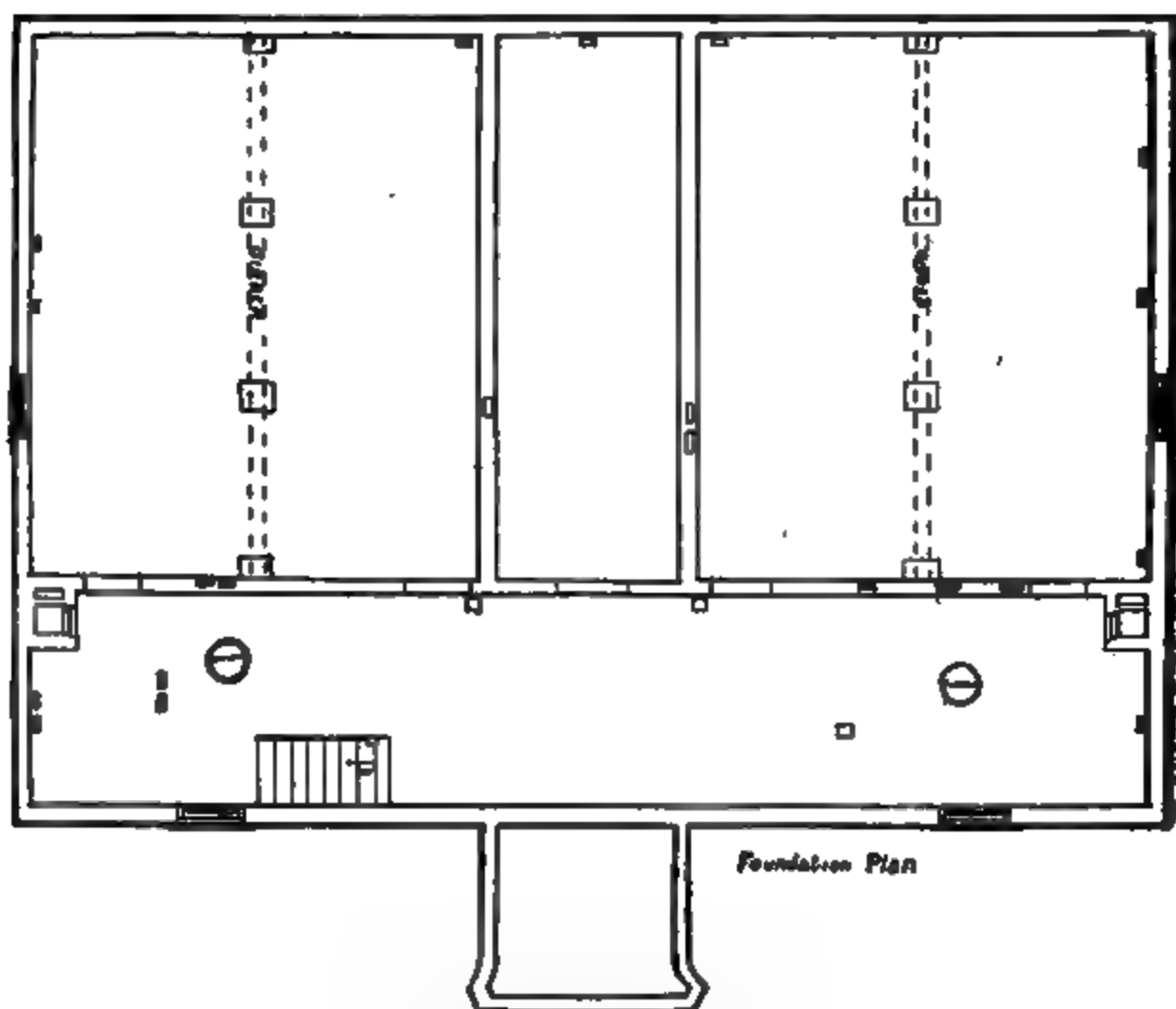


FIGURE 10
Underwood School Building - Foundation Plan. For building see figure 1.

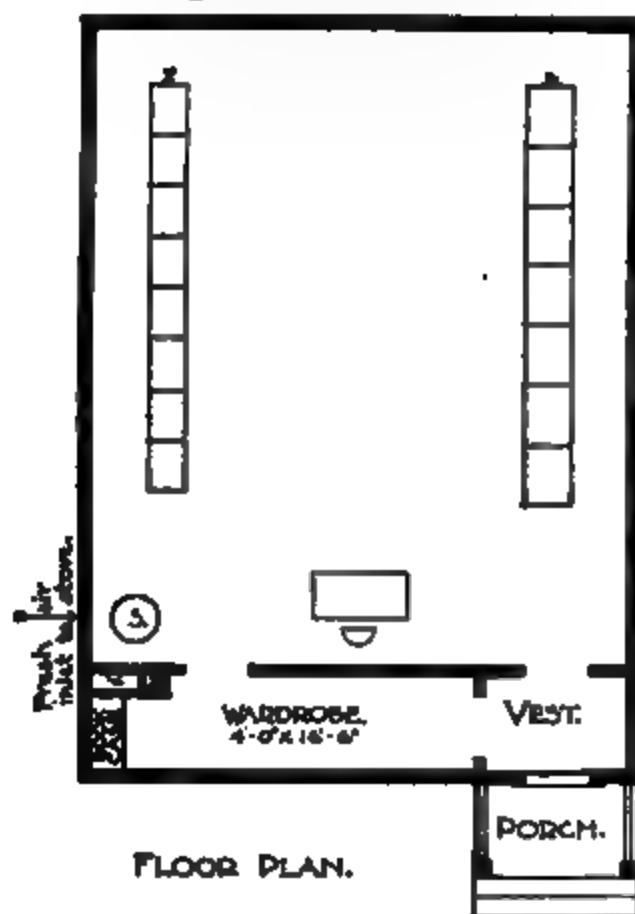


FIGURE 11.
District No. 2, Franklin Township, Monona County - Floor Plan. For cut of building see figure 4. The letters A, B, C, D, E and F refer to the size of the desks in the different rows and indicate the correct place for seating.

FIGURE 2.
Central School, Marathon, Buena Vista County.

FIGURE 3.
A two-room school house; convenient and inexpensive.
For floor plan, see figure 12.

FIGURE 4.
Rural School House, District No 3, Franklin Township, Monona County.
Cost \$800. For floor plan see figure 11.



FIGURE 5.
A one room school house so constructed that an additional room may be
added when needed. For floor plan see figure 15.

PART II.

STATISTICS.

1904.

SUPERINTENDENTS—STATE AND COUNTY—TERM, 1904-1906.†

JOHN F. RIGGS, SUPERINTENDENT PUBLIC INSTRUCTION,
DES MOINES.

County.	Superintendent.	Terms Served	Postoffice.
Adair.....	Mrs. Ella C. Chantry.....	1½	Greenfield
Adams.....	A. B. Lewis.....	1	Corning
Allamakee.....	John E. Mills.....	1	Waukon
Appanoose.....	W. M. Speers.....	.....	Centerville
Audubon.....	Arthur Farquhar.....	2	Audubon
Benton.....	C. R. Lowe.....	1	Vinton
Black Hawk.....	Chas. Elliott.....	.....	Waterloo
Boone.....	Ralph R. Cobb.....	.....	Boone
Bremer.....	John T. Remick.....	.....	Waverly
Buchanan.....	M. J. Goodrich.....	1	Independence
Buena Vista.....	J. E. Durkee.....	4	Sioux Rapids
Butler.....	Ida F. Leydig.....	1	Allison
Calhoun.....	W. R. Sandy.....	2	Rockwell City
Carroll.....	W. J. Barloon.....	.....	Carroll
Cass.....	Mrs. Bertha A. Johnson.....	½	Atlantic
Cedar.....	George H. Kellogg.....	.....	Tipton
Cerro Gordo.....	P. O. Cole.....	2	Mason City
Cherokee.....	Agnes J. Robertson.....	4	Cherokee
Chickasaw.....	F. J. Conley.....	.....	New Hampton
Clarke.....	W. C. Davis.....	1	Osceola
Clay.....	* H. F. Fillmore.....	3	Spencer
Clayton.....	C. J. Adam.....	2	Elkader
Clinton.....	Geo. E. Farrell.....	1	Clinton
Crawford.....	F. L. Hoffman.....	.....	Denison
Dallas.....	R. F. Wood.....	1	Adel
Davis.....	Harvey O. Roland.....	.....	Bloomfield
Decatur.....	Eli Hutchinson.....	.....	Leon
Delaware.....	Frank D. Joseph.....	.....	Manchester
Des Moines.....	Howard A. Mathews.....	2	Burlington
Dickinson.....	W. T. Davidson.....	1	Spirit Lake
Dubuque.....	P. J. Schroeder.....	1	Dubuque
Emmett.....	Maria Z. Pingrey.....	1	Esterville
Fayette.....	Henry L. Adams.....	2	West Union
Floyd.....	Frederick Schaub.....	1	Charles City
Franklin.....	Samuel E. Campbell.....	.....	Hampton
Fremont.....	Mattie Lee A. Lair.....	1	Sidney
Greene.....	A. J. Oblinger.....	.....	Jefferson
Grundy.....	J. D. Adams.....	.....	Grundy Center
Guthrie.....	M. P. Kenworthy.....	.....	Guthrie Center
Hamilton.....	L. N. Gerber.....	2	Webster City
Hancock.....	A. M. Deyoe.....	1	Garner
Hardin.....	Mrs. Ella B. Chassell.....	1	Eldora
Harrison.....	D. E. Brainard.....	1	Logan
Henry.....	* Annie E. Packer.....	3	Mt. Pleasant
Howard.....	Helen L. Chapin.....	.....	Cresco
Humboldt.....	* Clarence Messer.....	4	Humboldt
Ida.....	J. C. Hagler.....	5	Ida Grove
Iowa.....	Howard T. Ports.....	1	Marengo

* Was superintendent at a former time.

† Term extended to January 1, 1907 by the biennial amendment.

SUPERINTENDENTS—STATE AND COUNTY TERM, 1904-1906†—CONTINUED.

County.	Superintendent.	Terms Served.	Postoffice.
Jackson	C. C. Dublev.	2	Maquoketo
Jasper.....	John E. Roberts .....	.....	Newton
Jefferson	Anna White	2	Fairfield
Johnson	L. H. Langenberg.....	1	Iowa City
Jones.....	Clifford B. Paul	2	Anamosa
Keokuk.....	C. E. Miller	1	Sigourney
Kossuth	C. H. Belknap.....	.....	Algona
Lee.....	E. C. Lynn .....	.....	Donnellson
Linn.....	J. E. Vance.....	1	Marion
Louisa.....	C. R. Wallace.....	1	Wapello
Lucas.....	Laura Fitch	1	Chariton
Lyon	*A. W. Grisell.....	4	Rock Rapids
Madison	*T. H. Stone	2	Winterset
Mahaska	Jas. P. Dodds.....	2	Oskaloosa
Marion	W. H. Lucas.....	1	Knoxville
Marshall.....	Mary E. Hostetler.....	1	Marshalltown
Mills.....	*W. M. Moore.....	3	Glenwood
Mitchell	*Jay A. Lapham.....	3½	Osage
Monona	F. E. Lark.....	4	Onawa
Monroe.....	R. B. Spencer.....	1	Albia
Montgomery....	Mabel G. Hanna	1	Red Oak
Muscatine	F. M. Witter.....	1	Muscatine
O'Brien.....	Nellie Jones	1	Primghar
Osceola.....	J. P. McKinley.....	1	Sibley
Page	Geo. H. Colbert.	1	Clarinda
Palo Alto.....	Anna E. Odland .....	.....	Emmetsburg
Plymouth.....	I. C. Hise.....	3	LeMars
Pocahontas	U. S. Vance.....	2	Laurens
Polk.....	Z. C. Thornburg.....	1	Des Moines
Pottawattamie..	O. J. McManus	2	Council Bluffs
Poweshiek	P. A. McMillen.....	.....	Grinnell
Ringgold.....	Mrs. L. L. Richardson .....	.....	Mt. Ayr
Sac.....	H. C. Coe.....	.....	Sac City
Scott	J. H. Jacobs .....	.....	Davenport
Shelby.....	Geo. A. Luxford	1	Harlan
Sioux.....	W. E. Chase	1	Orange City
Story.....	Ira C. Welty.....	.....	Nevada
Tama	D. E. Brown.....	1	Toledo
Taylor.....	H. S. Ash.....	1	Bedford
Union	Frank M. Abbott.....	1	Creston
Van Buren.....	A. L. Heminger.....	.....	Keosauqua
Wapello	Emma Nye .....	.....	Ottumwa
Warren	J. W. Radebaugh .....	.....	Indianola
Washington	Cora Porter .....	.....	Washington
Wayne	Maud Elmore	1	Corydon
Webster	Alfred L. Brown	2	Ft. Dodge
Winnebago	*L. C. Brown.....	3	Forest City
Winneshiek.....	Ellis J. Hook	2	Decorah
Woodbury	*E. A. Brown	4	Sioux City
Worth	O. E. Gunderson.....	.....	Northwood
Wright	Agnus McDonald	2	Clarion

* Was superintendent at former time.

† Term extended to January 1, 1907, by the biennial amendment.

COUNTY SUPERINTENDENTS, 1904.
STATISTICS.

ABSTRACT [A] REPORT OF
SCHOOL

COUNTIES.	DISTRICTS.			SCHOOLS.			TEACHERS.			
	School townships.	Independent districts.	Number sub-districts.	Rooms in rural schools.	No. of school rooms in cities and towns.	Average duration in months.	Number Employed.		Av. Monthly Compensation.	
							Males.	Females.	Males.	Females.
Jefferson.....	9	88	69	38	7.7	29	194	8	40 56	81 72
Johnson.....	16	43	114	76	8.4	53	320	44	44 18	82 04
Jones.....	9	62	70	52	8.7	34	245	51	51 77	84 44
Keokuk.....	2	115	24	77	7.6	61	336	68	68 04	83 35
Kossuth.....	26	10	21	56	8.1	45	341	42	42 08	84 47
Lee.....	7	64	47	104	8.4	27	289	58	58 18	85 65
Linn.....	11	74	105	236	8.0	58	512	51	51 25	86 80
Lonia.....	9	28	59	38	8.8	32	176	44	44 01	84 04
Lucas.....	4	60	88	87	7.0	28	173	40	40 58	82 28
Lyon.....	12	19	84	41	8.2	41	304	42	42 75	86 49
Madison.....	12	37	119	40	8.1	44	284	57	57 62	81 89
Mahaska.....	9	74	68	91	8.1	51	313	46	46 58	87 05
Marion.....	4	118	22	66	7.2	41	247	42	42 19	82 82
Marshall.....	12	58	90	113	8.4	36	329	52	52 68	41 83
Mills.....	4	68	19	51	8.5	27	153	37	37 90	36 34
Mitchell.....	8	47	51	10	7.9	22	175	55	55 85	81 29
Monona.....	16	19	120	50	8.8	23	296	58	58 61	83 92
Monroe.....	7	40	60	52	7.8	29	188	44	44 00	82 18
Montgomery.....	10	29	85	53	7.5	25	229	58	58 45	85 70
Muscataine.....	11	27	68	99	8.8	22	245	67	67 97	86 85
O'Brien.....	15	7	128	65	8.5	49	244	62	62 81	87 43
Osceola.....	11	8	92	28	8.1	22	168	44	44 67	86 41
Page.....	11	47	88	74	8.3	31	265	50	50 00	86 26
Palo Alto.....	16	7	124	36	8.7	17	213	52	52 14	84 99
Plymouth.....	23	11	167	52	8.5	29	298	48	48 00	85 00
Pocahontas.....	15	15	117	43	7.8	32	245	42	42 88	85 86
Polk.....	18	58	90	265	8.4	63	575	72	72 55	52 72
Pottawattamie.....	24	28	214	186	8.6	49	557	60	60 06	41 67
Poweshiek.....	14	24	116	58	8.1	38	300	63	63 21	86 22
Ringgold.....	12	39	95	42	7.4	46	286	88	88 88	81 84
Sac.....	16	9	182	49	8.5	35	260	51	51 60	84 41
Scott.....	13	23	78	194	9.1	59	380	80	80 14	48 74
Shelby.....	16	10	182	49	8.6	64	340	41	41 32	86 94
Sioux.....	21	13	161	67	8.8	52	364	44	44 51	85 09
Story.....	14	31	115	80	7.8	61	297	44	44 44	41 35
Tama.....	12	32	95	68	8.0	41	356	48	48 69	83 17
Taylor.....	13	28	99	53	7.8	55	254	48	48 98	84 53
Union.....	10	24	91	68	8.5	26	149	54	54 07	85 75
Van Buren.....	8	50	65	40	7.5	43	187	40	40 78	29 15
Wapello.....	8	48	55	117	8.1	23	294	57	57 30	86 58
Warren.....	7	35	52	47	7.9	52	231	46	46 43	85 09
Washington.....	6	35	50	43	7.8	38	261	50	50 48	85 50
Wayne.....	13	34	91	43	7.3	54	305	59	59 19	29 38
Webster.....	18	44	187	83	8.1	31	331	50	50 10	86 78
Winnabago.....	10	12	76	37	7.2	36	140	44	44 36	86 30
Winnebiek.....	14	45	98	43	7.0	36	288	45	45 27	81 60
Woodbury.....	17	4	135	236	8.5	55	494	69	69 00	42 54
Worth.....	12	6	87	21	7.4	26	144	37	37 54	82 17
Wright.....	15	16	118	61	8.2	44	273	45	45 26	85 53
Total.....	1189	3741	9221	6458	8.0	3906	29019	48	48 24	85 51

1904]

REPORT OF COUNTY SUPERINTENDENTS.

7

COUNTY SUPERINTENDENTS FOR 1904—CONTINUED.
STATISTICS.

ABSTRACT [B] REPORTS FOR 1904. SCHOOL FINANCES.

Adair	\$ 28413 09	\$ 8707 43	\$ 1843 35	\$ 60875 7	\$ 141 70	\$ 175 88	\$ 19897 73
Adams	15085 04	4308 15	1108 00	61175 3	88 69	218 14	30100 20
Allamakee	18149 64	6803 41	1087 01	56335 3	108 87	371 35	17004 08
Appanoose	26804 88	8141 18	947 87	92029 4	127 00	1745 08	32001 98
Audubon	12883 19	5888 61	880 58	59915 3	177 57	87 53	12804 20
Benton	50587 58	11160 50	1308 86	180881 1	247 03	154 78	54503 73
Black Hawk	57212 97	14407 18	708 34	158380 4	239 97	3816 49	37388 50
Boone	88445 98	7916 01	800 87	110897 8	98 52	397 17	38888 40
Bremer	21597 14	5807 11	908 46	68463 4	18 17	484 01	21504 26
Buchanan	80779 85	7820 84	1581 00	97086 3	305 30	528 00	34966 38
Buena Vista	81190 09	6154 08	1337 53	88844 3	186 91	395 06	30844 53
Butler	38848 74	7988 45	1830 14	97752 3	381 15	207 44	30088 15
Calhoun	27848 44	5018 78	2878 15	88454 9	208 75	377 45	10870 07
Carroll	28899 70	6451 00	7818 71	94740 6	80 88	4800 50	27388 51
Cass	85427 98	5852 94	2497 91	108246 6	160 80	50 08	32461 68
Cedar	42436 01	8904 00	2805 98	108758 3	268 35	116 82	40731 94
Cerro Gordo	57855 79	12294 40	3881 60	111558 5	174 20	648 46	43790 53
Cherokee	84331 88	8849 50	1007 80	103108 2	190 08	288 17	40883 77
Chickasaw	32780 86	5584 51	1300 92	63086 7	29 82	183 51	22528 30
Clarke	16508 88	5218 83	1190 78	58088 9	128 25	787 62	16678 12
Clay	24048 05	8882 81	1903 58	73220 8	118 18	296 09	22581 40
Clayton	42098 20	1147 11	2107 34	110888 5	208 01	805 21	43086 24
Clinton	58078 08	4455 86	8714 75	164647 0	345 70	788 05	88719 34
Crawford	46880 44	2565 53	814 77	117808 3	84 82	2752 64	46827 20
Dallas	20888 87	8787 52	5428 78	111425 1	307 06	1502 75	32722 42
Davis	6557 98	7778 08	512 46	88519 0	115 90	317 24	11690 80
Decatur	20013 79	4870 84	1238 43	68079 3	585 80	117 81	26198 43
Delaware	32666 31	7086 79	1286 79	85543 6	262 10	172 52	35002 61
Des Moines	28576 90	10968 28	688 43	120851 7	55 50	14 80	28375 21
Dickinson	16888 47	3065 46	408 87	47122 3	80 01	115 82	15287 28
Dubuque	38008 80	10885 07	710 41	182861 2	118 66	180 08	18810 74
Emmet	16880 05	8435 00	583 00	58448 5	21 21	80 01	16886 30
Fayette	49554 07	0045 23	1120 71	118078 9	168 55	296 49	46395 96
Floyd	18838 85	7687 23	2019 82	74813 4	84 20	503 55	18889 20
Franklin	30590 60	6846 40	1873 78	78041 5	388 50	177 05	22217 56
Fremont	28278 30	6774 22	2069 79	94143 2	184 55	307 05	34025 10
Greene	80005 14	1084 85	2745 42	94086 4	100 62	478 13	35004 62
Grundy	28078 53	5843 81	799 29	75864 8	89 82	171 89	27998 75
Guthrie	31597 99	6088 71	1181 44	96258 0	187 02	1189 01	31004 86
Hamilton	27840 85	7884 85	1525 94	70808 3	244 08	617 80	27061 06
Hancock	34511 75	5976 54	1164 80	76808 0	241 49	241 48	24172 00
Hardin	58818 18	9081 41	2080 08	125874 5	374 11	1404 50	50886 08
Harrison	49101 07	9877 20	2580 01	122818 4	54 20	951 77	48650 25
Henry	26198 62	6563 77	948 64	68067 3	195 40	79 00	28459 26
Howard	18047 77	6954 50	8498 92	60817 1	104 58	473 35	18155 31
Humboldt	28087 01	5140 04	1555 27	71479 6	67 99	523 21	27914 20
Ida	39461 08	4195 09	2493 31	31881 01	65 80	800 20	32054 01
Iowa	30548 79	7008 75	5360 25	89105 44	236 91	3866 12	29047 13
Jackson	80871 78	8438 20	8435 21	56888 71	5 20	3919 22	38431 94
Jasper	48059 01	1944 65	1858 08	119191 21	209 09	89 83	41187 08

ABSTRACT [B] REPORTS FOR 1904—CONTINUED.

SCHOOL FINANCES.

COUNTIES.	TEACHERS' FUND.								
	DEBIT.				Total debit or credit.	CREDIT.			
	On hand at last report.	Received from district tax.	Received from semi-annual apportionment.	Received from other sources.		Paid teachers since last report.	Paid for library books.	Paid for other purposes.	On hand.
Jefferson	\$ 16848 88	\$ 80685 88	\$ 7224 17	\$ 1080 79	\$ 55729 22	\$ 80282 86	\$ 90 81	\$ 65 72	\$ 19881 88
Johnson	28922 80	57891 51	9042 10	2611 99	94068 40	70982 81	185 18	309 57	22581 84
Jones	81118 42	51678 86	9449 28	2091 38	94882 44	87872 86	161 49	1187 56	85161 06
Keokuk	88529 75	50887 47	8726 45	2049 65	90898 82	61180 96	412 60	607 85	87432 41
Kossuth	49794 79	68242 55	9121 58	1170 51	128829 88	81122 08	91 86	801 91	46812 98
Lee	15881 86	64266 50	11658 89	1804 96	98111 21	77408 22	198 65	416 54	15098 80
Linn	80488 06	155597 84	19480 87	8916 16	250677 42	166884 56	198 07	678 15	92171 64
Louis	22508 89	82629 01	6223 50	1885 48	63245 68	89000 48	84 90	1587 08	22878 88
Lucas	22111 64	81744 89	5129 86	856 04	59841 48	89140 48	161 48	105 98	20488 55
Lyon	29899 98	50455 89	6117 09	1808 28	83275 64	56614 80	189 80	649 00	80872 44
Madison	21437 68	41890 88	6805 40	1580 67	71164 08	49982 90	208 21	47 87	20880 60
Mahaska	21180 16	78760 08	8652 62	8628 68	107171 49	79658 18	180 57	2198 86	25140 88
Marion	86855 51	47705 20	8401 61	892 05	98854 87	56484 24	95 74	822 00	80501 79
Marshall	81085 06	78876 28	4428 80	9889 47	124228 56	87662 98	201 00	2948 28	88481 85
Mills	23152 56	48168 27	6818 80	8121 85	76256 48	48985 08	208 48	1008 57	20089 45
Mitchell	28210 66	88240 26	5099 02	1856 81	68746 25	42828 99	188 24	228 47	20555 55
Monona	87041 57	58878 45	5884 14	1112 49	96911 65	58801 84	187 78	686 86	87286 08
Monroe	15914 81	83887 47	7191 85	1788 08	58681 71	89640 80	204 49	827 85	18509 57
Montgomery	25629 67	48408 64	8594 88	411 01	88089 15	55819 76	80 71	115 96	27872 72
Muscataine	16278 00	68999 07	9818 86	4709 47	94800 40	79286 84	20 62	1190 94	14858 50
O'Brien	82856 77	60594 58	8058 80	2662 28	108680 88	67844 60	.....	2858 26	88487 47
Oceola	24200 42	29850 20	4059 84	568 50	58678 46	85287 85	162 08	54 70	28168 88
Page	48480 80	61868 96	6667 24	2286 91	118808 91	68215 84	278 18	596 88	44718 51
Palo Alto	22146 78	48285 88	5824 60	670 92	71878 18	49897 99	188 72	.....	21791 42
Plymouth	80282 45	64002 00	9694 96	2389 29	115298 70	72580 57	185 01	948 55	41089 57
Pocahontas	24680 92	48925 02	8809 24	2758 62	80168 80	54989 65	86 29	984 56	24808 80
Polk	108815 11	289772 58	85622 00	8001 81	460711 45	294882 97	54 94	2211 91	184061 68
Pottawattamie	57988 57	159849 29	18722 91	8410 28	289921 00	177888 08	480 12	628 07	60979 78
Poweshiek	32710 59	54826 42	9727 18	4071 83	101836 02	77814 87	245 45	798 06	82477 94
Ringgold	25180 09	89270 04	5502 29	812 19	70714 61	46187 88	188 98	455 08	28987 72
Sac	80881 58	48695 88	7887 48	2000 16	89415 05	59294 47	774 28	2287 15	27059 15
Scott	91409 75	187994 78	21880 68	8082 10	258817 21	165445 49	228 85	462 04	87640 88
Shelby	27861 88	55469 88	9402 85	1582 18	98766 14	62484 46	189 98	118 12	81028 58
Sioux	42875 98	71483 88	7861 50	1148 91	122871 72	85068 88	268 52	149 76	87885 06
Story	40868 78	68808 91	10495 61	1889 50	117085 80	74599 47	215 99	162 88	42117 96
Tama	47075 85	65299 00	14184 85	1700 98	128210 18	75896 57	168 89	886 87	52812 80
Taylor	28162 45	46228 58	4088 02	1756 82	81125 88	55150 12	24 62	882 48	25618 16
Union	80165 55	4948 68	6285 88	1716 20	88080 76	57712 82	202 50	124 64	25020 80
Van Buren	26255 75	29506 67	5788 85	1599 19	68149 96	87018 98	74 10	894 89	25166 99
Wapello	24874 18	87812 94	10245 89	1200 50	128688 46	97259 24	848 48	2878 28	28147 46
Warren	24626 86	40515 48	8771 18	1808 09	75216 01	51950 48	258 66	214 27	22797 65
Washington	25726 26	46142 56	8406 87	2749 41	88024 60	58208 85	116 96	801 94	28908 85
Wayne	22388 84	88885 81	6597 85	1486 15	68808 15	48787 94	210 68	1948 18	22908 45
Webster	80011 58	74180 87	11625 81	847 48	116114 64	82642 89	258 68	106 81	88111 76
Winnebago	20851 76	81489 98	4821 64	898 85	57508 68	85884 20	149 71	41 92	21980 85
Winnebuck	20082 80	85820 60	9246 26	1428 55	75578 20	49025 20	809 21	590 21	25658 58
Woodbury	84566 59	170427 82	22796 27	2288 04	280078 72	178566 65	159 06	28545 45	72802 56
Worth	16845 15	22902 44	4975 80	809 14	44622 08	27702 75	.....	.....	16919 28
Wright	41628 52	54284 11	6425 51	1844 51	106857 65	64946 78	161 51	94 78	88454 68
Total ..	828117 84	5602408 92	890411 26	190945 49	9891078 01	6541758 88	16788 65	100141 88	8282448 90

ABSTRACT [B]—

SCHOOL

Adair.....	896 81	8485 22	3217 50	7000 53	4745 32	1800 50	365 73	894 49
Adams.....	1586 78	3560 61	225 87	5328 26	658 38	976 58	1046 18	2446 74
Allamakee.....	529 24	2074 66	438 30	3067 81	1848 25	804 08	808 31	680 63
Appanoose.....	7848 89	7347 51	10472 71	36169 11	6437 95	13968 02	1205 05	4688 09
Audubon.....	5861 09	5927 49	127 06	11815 68	7793 84	1406 98	948 53	1807 82
Benton.....	4651 91	6214 60	568 85	10630 89	1144 30	4647 00	2200 00	2885 86
Black Hawk.....	17455 97	34988 45	296 31	42686 78	27918 89	10680 96	2018 54	2223 34
Boone.....	8829 68	11181 97	1828 85	15965 45	4784 49	5840 81	2688 40	2491 68
Bremer.....	898 84	6548 42	741 97	8184 23	2402 26	1061 61	2668 69	1441 87
Buchanan.....	8406 78	8401 54	10061 28	16888 60	6164 15	3077 02	8784 73	3892 70
Buena Vista.....	12878 98	16297 68	6048 79	29195 36	9496 52	11171 59	969 75	7559 49
Butler.....	2108 71	9778 00	1296 60	18177 81	7512 99	8148 72	940 72	1574 88
Calhoun.....	14518 91	8847 94	5532 00	28806 85	19502 18	8764 41	2687 67	2991 69
Carroll.....	5861 81	4739 17	5684 35	15777 33	4184 10	5687 59	2712 82	8068 35
Cass.....	1924 43	5026 75	32 86	6663 54	1617 03	2152 49	248 35	8070 67
Cedar.....	2580 23	4977 06	516 64	8068 98	1858 60	3771 11	1061 89	2187 83
Cerro Gordo.....	6655 76	15712 93	48781 62	66 00 81	50814 20	5117 47	2828 90	5274 74
Cherokee.....	3784 12	4108 10	389 83	7280 05	.....	2962 01	1052 97	3295 07
Chickasaw.....	5694 40	3015 45	689 70	3299 55	4270 29	2191 64	1028 04	1814 58
Clarke.....	2198 52	3891 15	315 88	6405 00	1246 00	3674 50	534 08	945 43
Clay.....	3028 08	7521 71	696 81	10236 56	1171 96	4486 94	2199 51	2158 41
Clayton.....	1848 81	8048 87	1900 26	11862 44	4779 20	2859 59	2142 69	2071 16
Clinton.....	6491 82	15798 70	3204 15	24491 17	9552 57	7188 87	1086 67	6713 06
Crawford.....	2549 87	5158 57	1460 71	9168 45	2457 21	1649 00	3045 62	1772 50
Dallas.....	8834 46	5871 07	5623 39	17828 89	8312 42	8832 82	1164 76	5115 79
Davis.....	25029 87	7186 40	1048 56	88264 53	28777 98	2572 37	770 02	1144 52
Decatur.....	4248 46	5806 51	5046 44	15101 41	7832 50	4623 90	1261 99	1392 32
Delaware.....	2216 79	3781 00	389 42	6897 21	2228 29	504 90	1479 78	1163 89
Des Moines.....	7981 79	18609 78	10908 21	88554 78	28577 18	6005 60	140 07	1829 68
Dickinson.....	5817 48	5960 55	18400 00	22577 98	17153 27	1822 59	799 25	2906 07
Dubuque.....	1964 88	11774 08	268 81	14007 17	1871 48	10210 27	620 69	1784 78
Emmet.....	2909 48	3921 77	9608 50	16494 76	11480 77	.....	857 32	3172 94
Fayette.....	3798 78	9260 40	10784 61	28847 74	14791 31	4411 58	406 71	4700 69
Floyd.....	1649 98	11098 36	166 61	12914 90	4802 12	8092 11	545 09	5005 58
Franklin.....	1900 50	3111 49	2843 78	7855 75	8419 18	1711 48	586 01	2226 13
Fremont.....	2878 76	4780 51	864 82	6019 09	3949 76	1665 50	948 19	1475 64
Greene.....	3187 50	4927 41	609 91	7984 82	1877 90	1665 75	3249 37	1691 80
Grundy.....	3416 70	4812 18	2275 65	11504 48	2182 38	4487 86	1374 57	2510 22
Guthrie.....	4178 18	4462 09	406 90	9046 12	1909 46	3422 88	1817 24	3197 09
Hamilton.....	4384 53	11551 95	1728 90	17660 38	5762 82	6256 57	8356 06	3084 96
Hancock.....	8867 57	6507 81	9698 67	24888 95	9445 07	2018 72	5530 29	7347 87
Hardin.....	4630 83	9808 51	3622 57	18261 71	5820 25	5724 89	1075 36	6141 34
Harrison.....	7967 53	8734 15	4234 10	20915 89	6199 82	6732 96	1041 85	6941 87
Henry.....	1699 87	8548 54	3525 62	9013 63	1927 52	4990 92	486 12	1699 27
Howard.....	28 0 04	5226 70	56 69	8149 48	886 47	.....	650 17	3765 65
Humboldt.....	2589 67	8883 35	6600 00	18916 02	1202 57	1461 56	270 44	12981 65
Ida.....	2190 96	7484 00	5580 80	15255 75	251 55	7376 45	4062 24	3565 51
Iowa.....	14923 18	5208 19	2200 55	22391 92	10899 94	8168 23	1196 72	4126 78
Jackson.....	2552 10	4481 86	5648 11	12926 57	3709 05	682 08	8809 10	2426 33
Jasper.....	4122 44	12191 46	554 47	18908 87	7464 57	1397 08	4856 87	5560 30

REPORTS FOR 1904—CONTINUED.

FINANCES.

CONTINGENT FUND.

1885 81	1885 55	600 47	28790 54	12285 45	1458 74	228 58	151 01	...	588 00	1075 16	7187 78
4882 59	12181 17	1019 78	17488 52	8080 48	1051 06	149 00	178 19	878 88	...	1056 50	5102 91
3710 11	11058 70	1778 64	18047 45	7881 28	1085 82	164 52	81 72	78 28	...	1741 28	4212 88
8788 12	19159 81	2867 08	80884 46	18748 51	1284 74	596 18	24 50	...	...	882 96	11674 45
7888 78	18808 40	2006 99	22718 17	18874 42	1385 95	504 78	22 15	628 82	...	1761 09	4670 81
18074 88	22401 57	1898 09	88878 99	17048 80	1861 60	263 15	78 80	87 20	878 00	4468 88	14727 03
18770 89	84047 72	5170 82	88988 95	24458 78	1700 89	1868 12	198 09	89 82	1511 92	12518 68	11208 85
7078 08	22708 12	4180 01	88986 21	18474 91	2002 06	658 28	814 18	...	525 56	4808 65	7216 26
8974 16	18678 02	1949 84	21499 52	18804 84	1179 87	268 19	124 48	85	...	686 78	5242 82
7801 44	17822 96	1117 81	26741 71	14116 08	1511 85	121 82	108 70	11 04	1578 88	1849 20	7949 84
10889 88	18808 81	8709 18	88416 80	16521 99	1808 58	709 45	129 90	...	978 97	3805 98	9686 69
16887 81	18177 25	806 61	29170 87	11556 77	1688 78	877 74	208 99	8 50	1025 81	1574 29	12290 29
7278 82	80484 86	4174 65	81931 88	17778 49	1646 81	2191 98	264 70	876 88	2681 81	1879 22	5418 69
18672 83	21147 04	6858 72	41878 89	26214 55	1459 05	614 80	997 78	472 91	2707 81	8340 14	9487 81
10486 40	22758 22	1850 62	84600 24	19580 77	1708 78	1044 51	185 78	20 22	1115 71	2688 02	8227 47
11488 42	17895 88	1410 48	80619 88	18718 74	1697 00	859 89	75 45	12 90	650 80	2144 88	11905 82
5586 98	24782 06	7849 87	87700 55	20484 29	1461 85	1287 78	102 81	...	...	6082 89	6559 06
9420 40	19884 68	1417 24	80222 82	14670 66	1755 65	251 79	64 50	...	1229 28	1129 09	11141 41
5882 19	12518 21	5502 67	28851 07	12451 88	1109 79	590 79	44 85	5 70	2287 79	8789 87	8120 95
6885 96	11056 88	282 46	16804 75	10680 88	829 07	89 15	72 28	...	116 85	820 87	8096 75
7721 97	18750 80	1788 65	25210 98	11981 62	1174 61	50 09	89 72	79 81	858 16	4462 40	6516 97
7886 98	21834 26	2800 04	81991 25	16261 99	1826 08	1876 42	188 87	161 08	1799 59	2588 22	7813 05
14287 88	40808 64	1880 09	54470 81	29182 87	2270 07	1454 48	408 45	2929 58	1721 75	5495 40	12008 88
18108 65	28798 65	6901 87	48568 18	20905 06	1817 81	1878 04	25 18	218 88	8358 81	8128 40	7889 69
10887 59	22880 72	5509 10	88287 88	18778 21	1452 87	261 85	810 50	...	1716 22	5448 51	...
8289 78	8056 47	698 42	19089 05	6848 94	1112 21	24 58	8 40	...	154 02	2589 17	1900 88
5786 81	12889 48	8208 04	21758 63	12174 88	1844 94	708 44	91 86	124 69	475 84	2789 55	...
7388 82	14614 05	1714 89	...	11900 84	1276 88	656 70	195 44	...	400 81	2400 89	6840 94
10894 82	27405 17	1804 67	40204 65	21794 48	1448 09	484 88	528 58	471 55	...	10824 28	8878 78
8788 84	10511 47	1250 18	15589 99	8898 11	907 58	116 92	88 17	...	858 82	2767 97	2432 42
7027 05	22224 80	847 06	40796 68	24602 59	8525 00	686 42	287 97	...	1778 72	8824 77	6848 21
6844 65	11806 02	3079 72	21249 09	12484 46	754 08	55 85	28 74	...	79 48	2922 17	4924 41
22789 10	23411 80	821 27	80001 97	17877 89	1768 88	229 90	278 87	75 18	2088 86	4294 26	10080 58
8278 86	18088 07	1212 89	26588 74	18722 29	968 40	878 68	151 05	5 82	1076 08	8858 88	5262 14
7880 84	18890 75	5678 58	27424 62	15891 41	1689 45	46 71	80 18	88 58	...	1994 68	...
10789 07	16178 21	910 02	27798 80	18886 21	1814 82	969 26	126 14	11 21	148 78	1077 81	10128 96
18746 54	18868 02	2000 12	81759 68	12768 87	1598 90	884 88	1248 41	418 62	3000 27	8640 49	9721 29
7889 80	18854 12	284 24	80167 18	10887 82	1188 71	888 84	82 20	...	86 58	682 16	8924 81
10885 99	20418 95	1089 59	82554 54	19144 44	1268 81	458 74	68 68	...	501 41	2417 86	8711 10
10881 86	19116 61	2785 69	82788 00	15675 49	1597 88	662 72	108 59	2 15	2780 59	2086 90	...
7881 88	19162 00	8255 87	80088 90	16028 78	1163 50	188 29	78 00	818 45	2162 67	2083 49	8062 77
11108 84	24289 58	8065 68	87740 45	19411 06	1774 88	79 26	189 98	...	2627 69	1786 66	12020 76
18978 14	22878 28	1888 02	87985 44	20808 08	1599 47	274 79	221 09	628 28	948 95	2844 82	11155 00
8878 08	14122 64	1805 58	72808 28	11888 82	1211 08	1610 82	81 19	...	161 60	2260 48	5149 84
8808 76	12560 2	819 18	17880 16	11558 68	785 27	86 90	81 72	...	262 48	...	4485 86
8794 88	12541 69	1422 82	19769 18	9484 87	1028 41	480 83	96 62	5 00	548 60	8727 88	...
8846 80	14876 87	2888 80	81064 97	12868 06	1081 25	726 91	118 85	...	...	...	5408 97
9112 51	17406 07	4868 42	81482 00	12905 22	1028 78	254 58	239 27	86 20	1086 81	6824 41	8771 28
12187 48	20125 26	1888 28	84170 82	14485 78	1984 69	808 81	811 84	168 68	...	8127 24	12212 62
13035 79	11777 18	8911 98	88074 90	19202 98	1058 88	801 08	28 88	...	1672 67	6069 82	8485 86

ABSTRACT [B]—

SCHOOL

COUNTY.	SCHOOLHOUSE FUND.						
	DEBIT.			Total debit or credit.	CREDIT.		
	On hand at last report.	Received from district tax.	Received from other sources.		Paid for school-houses and sites.	Paid on bonds and interest.	Paid for library books.
Jefferson	\$ 528 84	1778 84	\$ 100 00	\$ 948 78	\$ 178 97	\$ 708 40	.....
Johnson	2804 08	12187 88	2088 08	26880 18	10884 87	4408 80	\$ 2 84
Jones	7178 48	4488 41	800 88	11467 77	8018 84	1688 72	.....
Kearuk	2108 88	9828 87	8888 41	16828 90	1111 41	7884 87	.....
Kossuth	8188 88	18708 81	2408 88	24801 00	8008 09	8884 88	.....
Lee	1111 11	8791 84	1418 28	8102 36	2111 84	2000 00	.....
Linn	3828 87	40081 74	11001 84	54812 45	27088 88	18001 72	8 84
Louis	1880 88	4888 88	1078 88	8778 84	8884 12	1111 17	.....
Lucas	1427 47	8070 89	884 81	10082 87	1728 48	8187 82	.....
Lyon	6881 88	18084 78	2184 48	25441 08	2808 88	1111 11	18 12
Madison	4478 77	8810 88	1111 11	18828 88	7717 88	3128 48	.....
Mahaska	2887 07	8844 18	2888 88	18880 78	8888 80	8078 40	188 84
Marion	18188 88	8888 17	8418 88	11111 11	14448 88	7884 48	.....
Marshall	2110 88	18888 88	487 44	17878 88	918 88	8480 28	18 08
Mills	7788 88	4787 28	2880 78	15887 72	8788 10	8710 88	.....
Mitchell	1478 48	1171 41	1174 41	5088 84	188 78	1818 80	.....
Monona	7087 04	8087 84	2888 87	11111 11	7882 28	8414 88	.....
Monroe	1111 11	7088 88	10888 88	28817 84	6488 82	4887 88	.....
Montgomery	1888 88	9188 18	2078 12	18184 87	878 00	8881 38	.....
Muscatine	19 48	8848 88	8 21	8878 84	887 88	8718 88	881 84
O'Brien	8888 88	18888 81	1111 11	18887 82	7277 88	8888 78	.....
Oceola	8848 48	7018 88	8888 88	22788 02	18478 88	1704 87	.....
Page	7288 82	8848 48	288 91	11111 11	8718 84	8481 88	.....
Palo Alto	8880 21	4018 87	9042 88	10041 87	2161 88	2148 88	.....
Plymouth	7788 42	8888 48	28807 48	44487 38	1777 87	10887 77	.....
Pocahontas	1878 74	8488 41	18878 48	27821 80	9717 88	7878 10	.....
Polk	88448 82	1111 11	1111 11	102488 14	888 48	20048 88	.....
Pottawattamie	8488 44	8888 28	1128 48	88488 12	7888 18	22884 88	.....
Poweshiek	10888 84	12784 88	48444 88	68788 08	58188 82	1748 18	.....
Ringgold	8878 72	8884 88	784 77	18888 84	8788 88	3408 27	11 21
Sac	7101 10	18218 81	8410 82	25728 88	18817 28	5888 80	.....
Scott	4708 88	28878 27	117818 18	147884 28	28488 27	28871 88	.....
Shelby	1481 88	8840 98	791 82	9184 88	1088 27	8888 88	.....
Sioux	8072 08	10884 18	884 88	17081 08	2818 18	4787 08	.....
Story	8287 00	7288 88	28818 28	88188 81	28880 88	8888 88	88 84
Tama	7018 42	10118 78	18888 88	88888 80	14812 08	3108 87	.....
Taylor	1111 11	4770 78	28787 82	88484 08	17088 88	2081 04	.....
Union	8181 81	11881 81	788 18	20788 08	11088 28	1008 80	.....
Van Buren	8081 84	4778 88	148 84	10880 71	8721 84	2188 08	.....
Wapello	2888 78	18888 87	1818 80	20811 80	11088 84	4078 82	.....
Warren	2871 12	7841 82	19188 88	28278 80	24818 88	2488 80	.....
Washington	888 20	8848 87	8187 88	1111 11	8828 18	8787 88	8 21
Wayne	2884 84	8887 81	2888 88	10810 78	8878 21	2882 87	.....
Webster	2888 08	18871 88	11018 88	87441 12	20717 88	1111 11	.....
Winnebago	2880 47	8888 84	1888 17	10188 28	2887 88	4188 78	.....
Winneshiek	8148 18	8884 88	2788 88	14488 88	2887 78	8821 74	.....
Woodbury	8888 20	81248 71	1818 87	87081 78	82471 72	18888 48	.....
Worth	9118 88	1111 11	1888 88	14877 27	10008 88	2884 18	11 71
Wright	4177 79	8888 88	188 88	10888 84	8801 84	1881 88	.....
Total	508588 78	922188 88	121844 88	1655558 88	11111748 88	184271 88	1418 88

REPORTS FOR 1904—CONTINUED.

FINANCES.

CONTINGENT FUND.

DEBIT.			CREDIT.					
On hand at last report.	Received from district tax.	Received from schoolhouse fund and other sources.	Total debit or credit.	Paid for fuel, rent, repairs, insurance and janitors.	Paid secretaries and trustees.	Paid for records and apparatus.	Paid for library books and dictionaries.	Paid for free text-books.
\$ 3088 22	7877 01	1880 07	\$ 1885 80	\$ 8198 50	\$ 1006 97	\$ 179 80	\$ 160 08	.....
7088 20	24804 15	4587 04	80716 49	18822 57	1874 00	1846 07	176 48	.....
3088 21	16480 07	4508 02	80112 80	18004 28	1806 04	289 07	117 98	\$ 98 08
7488 41	21486 72	3778 15	31008 28	14005 02	1848 28	618 78	108 21	3 00
3088 02	28779 41	1888 04	80112 87	21251 22	1006 91	684 75	208 15	7 07
8884 54	28155 38	1008 11	28428 54	16897 75	1523 45	851 86	50 15	13 80
2870 25	64192 54	18080 54	92868 88	58112 70	2828 47	718 07	415 02	4808 08
2888 28	11808 45	1688 58	17812 81	7711 05	1017 49	207 08	174 98	.....
2888 00	12701 04	1171 20	17564 98	11045 86	1188 20	574 84	73 78	15 70
11045 54	18785 72	1194 90	81008 25	18545 10	1784 80	334 96	70 47	204 72
8887 08	17898 04	818 08	28897 78	14371 59	1078 84	21 81	22 89	.....
12847 71	18797 10	2046 29	85580 18	20341 98	1770 55	287 28	187 24	7 85
10847 51	20612 47	1867 90	82610 87	14177 80	1840 14	1167 21	145 76	5 00
8888 64	28802 86	4052 29	42145 80	21411 47	1081 88	575 85	1089 08	2888 92
2488 98	18777 22	8284 27	28478 47	11641 06	1444 41	651 02	68 70	807 10
8285 44	18015 28	2887 08	24000 76	11808 87	982 98	272 11	70 15	.....
8888 06	22078 90	4488 85	88585 89	16820 10	1010 86	1087 09	74 82	.....
2882 48	8874 80	2882 07	18840 44	8108 78	1204 80	280 92	210 96	11 70
7872 84	14429 52	6189 42	28871 28	19778 56	1079 88	747 86	11 00	.....
2888 89	28800 40	2861 01	30878 80	18742 08	1685 12	216 44	80 61	60 51
6188 08	28144 01	3484 14	28927 18	19028 87	1297 94	277 22	95 11	12 00
8088 20	10545 79	707 08	17812 02	9480 72	980 25	505 28	98 17	.....
2880 58	22780 18	2884 19	85054 85	16801 81	1807 09	166 85	87 75	418 15
2748 94	16480 70	888 02	20058 56	11780 24	1070 80	286 72	98 15	.....
8847 78	22880 95	1088 12	82856 87	16897 51	2462 50	718 02	887 10	.....
8888 02	18708 72	1822 04	20581 79	14085 85	1857 80	168 77	52 78	149 74
11315 80	118874 22	8871 88	185180 90	98444 20	4808 29	548 00	476 21	2472 06
12886 27	88228 31	6198 88	87780 06	87764 80	8144 88	1240 41	168 87	4842 28
8804 56	20815 84	8882 00	88078 10	18117 08	1212 80	508 24	248 40	790 49
7888 67	12812 70	780 52	30880 88	11888 80	1242 75	505 19	80 80	12 50
8842 91	16880 91	8504 40	28008 22	16877 88	1288 79	881 82	288 88	4 74
8872 11	78840 97	9728 61	98880 09	45188 28	8088 85	511 01	880 08	.....
10870 72	19871 02	2188 86	88088 80	18742 77	2812 85	888 91	487 17	141 08
4782 78	20845 88	2882 40	88880 48	81861 12	2488 58	580 54	187 49	188 72
8872 02	24879 14	7188 08	40882 64	28005 43	1580 78	728 08	241 45	288 08
12827 85	28888 40	8775 81	40888 04	17888 75	2181 87	408 74	280 88	280 87
8482 08	17788 98	882 08	27087 72	18078 60	1880 87	804 81	17 08	4 88
8874 08	18088 22	8848 44	27886 76	18888 86	1164 40	118 11	228 88	88 88
2880 98	9888 08	405 70	15808 71	6018 08	288 56	55 74	28 56	138 22
8884 80	80704 88	1018 76	28188 89	24088 86	1848 48	2887 48	15 85	17 50
7888 88	18882 54	4488 41	28417 81	12894 85	1480 99	778 71	85 74	.....
8888 91	14876 12	2874 49	25141 82	18991 86	1441 18	404 08	188 82	18 25
4188 65	18408 98	2800 85	19888 16	9884 74	988 90	124 10	4 10	81 27
8442 75	27840 57	2802 96	88888 28	28888 48	1887 94	415 28	285 50	10 04
8715 77	18708 06	1688 42	24042 84	10888 72	944 85	808 04	78 88	850 18
8804 82	14880 18	1477 19	21509 24	12887 28	1877 80	485 82	118 77	10 85
8887 78	88888 88	4888 82	90546 47	61196 14	2484 12	1882 56	461 88	504 98
8888 88	8884 91	1280 80	18888 19	7288 94	728 87	143 85	87 08	2 80
2888 25	22808 78	4888 17	28804 80	21978 84	1878 60	657 09	75 57	.....
81884 28	218184 88	208877 07	288880 88	178088 78	15880 14	54824 12	10882 48	28008 77
181810 28	281887 94	772541 51						

ABSTRACT [C] EXAMINATION

Adair	9	41	4	74	20	128				1
Adams	7	28	30	155				2		
Allamakee	1	6	11	79	7	104		2		6
Appanoose	8	14	25	102	16	92	1	9		9
Audubon	8	31	18	75	12	90				
Benton	4	40	20	159						
Black Hawk	8	33	12	183			1	5		6
Boone	11	45	12	127	10	34		1		
Bremer	2	30	13	186						1
Buchanan	19	60	23	151	2			2		
Buena Vista	9	30	7	130	1	13				
Butler	10	42	30	167						
Calhoun	6	44	8	146	4	65		6		
Carroll	4	60	12	70	4	24	2	7		
Cass	5	30	5	192		9		5		
Cedar	5	38	14	141	2			2		
Cerro Gordo	7	34	14	171	8	37	1	6		
Cherokee	4	27	12	130	3	43				
Chickasaw	4	18	9	70	9	60	4	20		
Clarke	8	17	11	56	23	34		2		
Clay	4	44	11	114	3	51		5		
Clayton	4	19	20	146	13	37	4	22		
Clinton	6	21	7	103	13	106	3	6		
Crawford	10	44	12	174	3	73	1	4		1
Dallas	5	27	23	203	10	45		3		
Davis	13	5	13	45	9	33				
Decatur	3	23	11	81	19	103		1		
Delaware	3	17	3	65	1	64		6		1
Des Moines	4	13	13	163			3	6		3
Dickinson	9	14	4	33	1	11		1		
Dubuque	5	3	4	163		102	2	2		13
Emmet	3	22	3	70	1	37		3		
Fayette	4	30	9	141	3	31	5	40		
Floyd	4	23	10	160			4	7		2
Franklin	2	14	12	33	10	37	1	5		
Fremont	3	16	6	132	6	55				
Greene	5	20	10	133	5	34				
Grundy	7	21	13	103						
Guthrie	11	47	15	90	22	107				
Hamilton	2	10	7	103	9	97	4	2		3
Hancock	3	24	13	142	5	30	1	1		
Hardin	4	24	13	120	14	35	3	6		1
Harrison	3	40	10	133			1	2		
Henry	7	21	21	124	3	32		2		1
Howard	3	30	3	33	4	40		4		
Humboldt		10	3	33	3	33		3		
Ida	3	20	7	33	4	30				
Iowa	4	27	22	120	3	65	1	7		
Jackson	4	13	9	103	3	73				
Jasper	3	23	22	242						

REPORTS FOR 1904. OF TEACHERS.

Total number issued.		Applicants rejected.		Applicants examined.		Different persons licensed.		Average age of applicants.		No experience in teaching.		Taught less than one year.		Holding state certificate or diploma.	
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
28	244	8		27				26	21	9	45	9		29	3
87	186	8		23				28	20	1	30	2		32	1
19	197	8		28				25	31	4	29	2		31	2
50	226	8		27				25	28	10	31	0		17	4
28	186	8		21				28	22	5	30	5		31	4
20	305	9		24				28	22	5	31	10		50	7
16	227	8		30				28	21	4	27	0		43	20
23	287	2		27				28	22	4	34	5		44	25
18	180	8		19				21	22	4	19	5		38	5
25	213	1		22				24	22	9	29	8		21	41
17	168	2		19				28	21	1	13	14		70	20
30	199	7		24				25	21	8	33	4		7	28
18	261	6		29				26	23	2	38	4		69	11
22	161	4		31				28	21	2	7	4		30	10
10	256	1		33				28	21	3	32	4		60	10
21	199	1		21				25	22	5	30	2		19	15
30	243	10		31				28	23	17	30	12		62	14
19	200	1		30				27	22	9	22	5		19	13
25	153	4		19				21	24	3	16	3		21	6
37	169	9		18				26	21	8	14	2		12	6
16	212	6		22				27	22	2	43	3		64	5
41	224	9		29				27	22	12	21	5		9	5
29	280	3		41				28	24	7	40	1		39	7
26	201	1		33				28	24	2	28	4		32	6
28	273	1		29				28	20	9	41	17		70	14
26	112	5		12				26	28	12	29	4		20	3
39	206	3		22				22	22	18	40	4		25	6
7	153	2		19				25	19	1	28	1		26	3
30	187	2		19				32	28	4	20	1		16	28
14	109	1		13				26	28	1	19	1		9	7
11	293	1		30				34	29	3	12	3		16	2
7	134	1		16				27	23	2	21	1		8	11
23	249	11		30				22	31	5	26	5		41	10
18	196	11		24				24	21	5	21	1		15	21
25	182	11		34				28	21	6	23	4		15	10
20	200	4		31				21	20	4	25	2		6	8
20	187	10		24				30	22	4	15	1		10	8
23	180	9		15				21	19	2	24	3		11	9
45	244	1		26				28	28	14	28	3		31	8
22	214	4		25				25	22	5	29	5		36	10
23	217	10		24				26	22	5	20	3		37	8
28	256	9		23				24	21	6	54	7		58	19
14	178	6		26				20	19	2	43	2		17	24
31	181	2		27				25	23	9	36	3		22	1
15	173	8		20				28	20	4	19	2		19	6
11	180	1		21				26	22	3	15	4		27	8
17	139	1		18				27	24	3	15	5		23	3
24	219	3		26				27	21	6	34	11		32	7
13	303	1		20				29	26	3	49	1		26	8
36	270	0		44				29	24	3	33	5		33	10

ABSTRACT [C]—

EXAMINATION

COUNTIES.	1st grade certificates issued.		2d grade certificates issued.		3d grade certificates issued.		Special certificates issued.		Kinder- garten certificates issued.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Jefferson.....	5	18	18	121	3	51	.....	2	.....	.....
Johnson.....	1	28	89	278	.....	.....	5	2	.....	.....
Jones.....	4	80	14	156	.....	.....	.....	.....	.....	.....
Keokuk.....	11	85	42	284	.....	.....	.....	4	.....	.....
Kossuth.....	10	82	8	162	4	85	.....	1	.....	.....
Lee.....	6	10	9	146	6	56	4	8	.....	.....
Linn.....	8	18	21	188	7	128	2	18	.....	.....
Louisa.....	2	19	6	49	16	71	.....	.....	.....	.....
Lucas.....	.....	18	8	52	25	95	.....	.....	.....	.....
Lyon.....	5	24	16	98	8	17	1	5	.....	.....
Madison.....	8	18	10	151	4	78	.....	.....	.....	.....
Mahaska.....	2	11	18	80	21	220	2	5	.....	5
Marion.....	7	16	18	65	21	87	1	5	.....	1
Marshall.....	1	16	17	118	9	106	1	9	.....	8
Mills.....	8	17	9	80	2	28	.....	8	.....	.....
Mitchell.....	5	12	4	182	.....	.....	.....	1	.....	.....
Monona.....	4	40	4	122	1	42	.....	.....	.....	.....
Monroe.....	4	11	7	52	12	81	.....	11	.....	.....
Montgomery.....	10	81	12	94	4	45	.....	8	.....	.....
Muscatine.....	2	87	8	68	8	98	.....	8	.....	.....
O'Brien.....	7	40	18	108	15	74	1	4	.....	1
Osceola.....	5	18	9	79	1	27	.....	1	.....	1
Page.....	5	20	8	120	12	72	1	5	.....	.....
Palo Alto.....	1	47	5	91	2	18	1	4	.....	.....
Plymouth.....	4	28	14	140	3	83	.....	2	.....	.....
Pocahontas.....	5	55	14	71	7	28	.....	.....	.....	.....
Polk.....	4	98	20	198	.....	.....	20	196	.....	84
Pottawattamie.....	8	124	17	259	.....	.....	2	12	.....	17
Poweshiek.....	7	40	7	101	5	56	.....	11	.....	8
Ringgold.....	6	28	14	88	7	95	.....	2	.....	.....
Sac.....	10	89	5	95	7	100	.....	.....	.....	6
Scott.....	6	5	80	286	.....	.....	7	80	.....	.....
Shelby.....	10	19	20	127	.....	.....	10	10	.....	.....
Sioux.....	16	47	21	120	11	74	.....	5	.....	1
Story.....	5	5	58	200	1	85	.....	8	.....	.....
Tama.....	11	30	24	195	.....	.....	1	1	.....	.....
Taylor.....	6	86	7	111	8	47	1	1	.....	.....
Union.....	3	25	18	87	9	44	2	5	.....	8
Van Buren.....	4	17	12	76	18	78	.....	1	.....	.....
Wapello.....	5	18	10	197	7	84	4	15	.....	.....
Warren.....	6	21	11	128	11	67	.....	1	.....	.....
Washington.....	6	24	27	208	.....	.....	.....	.....	.....	3
Wayne.....	11	8	81	95	24	108	.....	.....	.....	.....
Webster.....	1	45	20	169	6	48	.....	5	.....	.....
Winnebago.....	9	27	18	102	1	43	.....	7	.....	.....
Winne-hiek.....	6	10	14	125	10	54	.....	5	.....	1
Woodbury.....	12	57	8	142	.....	80	8	6	.....	1
Worth.....	3	19	14	69	.....	.....	.....	.....	.....	.....
Wright.....	8	83	11	145	12	51	1	4	.....	.....
Total.....	559	2763	1335	12559	620	4960	121	602	.....	146

1904]

REPORT OF COUNTY SUPERINTENDENTS.

17

REPORTS FOR 1904—CONTINUED.
OF TEACHERS.

Total number issued.		Applicants rejected.	Applicants Examined.	Different persons licensed.	Average age of applicants.		No experience in teaching.	Taught less than one year.		Holding state certificates or diplomas.	
Males.	Females.				Males.	Females.		Males.	Females.	Males.	Females.
21	187	24	211	18	27	28	4	88	8	4	7
45	286	10	808	30	21	22	2	81	3	8	11
18	186	67	253	16	25	38	4	28	2	5	7
23	273	43	316	48	26	24	8	88	8	10	6
23	230	141	871	17	24	20	.....	.....	.....	7	14
23	230	6	226	28	35	37	2	16	2	4	3
24	387	109	446	82	25	22	6	42	10	12	37
24	189	65	174	19	27	22	5	24	5	8	6
24	169	27	187	23	23	25	2	8	4	4	.....
24	144	5	149	25	32	21	5	80	8	6	12
17	242	68	808	16	26	25	6	24	7	6	4
23	331	88	404	88	24	23	5	86	5	8	2
23	174	95	269	88	24	23	5	20	5	8	5
23	257	83	840	20	25	24	4	27	1	12	40
19	128	27	155	17	32	23	2	19	.....	8	7
23	145	20	165	10	24	23	.....	20	4	6	2
23	204	17	211	9	25	21	2	88	1	4	4
23	155	47	202	21	27	22	2	16	6	2	7
23	173	9	182	26	.....	.....	5	27	4	2	9
18	196	5	201	16	23	25	2	25	.....	4	5
41	222	18	235	81	23	22	8	49	11	5	21
15	126	29	155	15	27	22	1	12	1	1	3
26	817	65	282	20	23	23	5	82	4	10	23
9	160	72	282	7	23	20	4	43	4	2	6
21	201	83	284	18	23	22	1	41	1	5	4
26	154	61	215	22	24	22	7	28	15	5	18
44	528	78	604	40	32	27	9	90	16	6	80
27	412	92	504	20	25	23	8	75	5	13	48
19	211	30	241	19	.....	.....	6	84	5	4	8
27	213	74	287	24	25	23	6	49	2	4	2
22	240	56	296	14	29	23	4	21	6	8	9
43	321	14	335	89	31	29	6	22	8	10	1
40	156	83	189	40	24	23	5	45	5	4	5
48	247	87	284	41	26	22	11	88	7	4	9
59	243	21	284	25	20	22	12	75	12	5	9
36	226	68	239	30	26	22	6	46	8	2	12
17	195	80	275	14	25	22	2	20	3	8	6
27	169	8	177	26	25	29	1	17	2	4	2
34	172	8	180	29	26	26	10	28	8	4	1
26	314	72	336	18	27	24	1	21	1	3	15
23	215	4	219	27	31	30	5	48	9	5	6
23	235	70	305	27	24	22	7	25	5	5	12
23	206	7	218	60	.....	.....	8	40	10	2	3
27	267	64	331	24	22	23	7	47	5	5	16
23	179	15	194	20	24	21	8	40	8	8	7
30	195	121	816	26	25	23	8	9	9	8	8
23	236	86	272	28	33	22	8	55	1	10	27
17	88	16	104	17	24	22	9	16	11	8	1
32	233	21	254	24	21	23	7	47	.....	7	16
2034	21090	423	25155	2288	17922	*25	498	2981	480	8314	4521147

*Average.

ABSTRACT [D].

VISITATION OF SCHOOLS, APPEALS, ETC., 1904.

ABSTRACT [D]—CONTINUED.

VISITATION OF SCHOOLS, APPEALS, ETC., 1904.

COUNTIES.	VISITATION OF SCHOOLS.		EDUCATIONAL MEETINGS.			AP-PEALS.	O'M'P'N SATION OF CO. SUPTS.	COLLEGES AND PRIVATE SCHOOLS			
	Schools visited by county superintendent.	Visits made during the year.	County associations.	Township meetings.	Educational meetings held.			Number.	Teachers employed.	Students attending.	Number of graduates 1904.
Jefferson.....	126	152	Yes..	No ..	2	1	1250 00	8	26	864	21
Johnson.....	102	102	Yes..	Yes..	25		1250 00	9	178	2188	471
Jones.....	70	75	Yes..	No ..	2		1250 00				
Keokuk.....	74	88	Yes..	Yes..	36		1250 00				
Kossuth.....	92	92	Yes..	Yes ..	9	1	1475 00	6	18	484	80
Lee.....	84	90	No ..	No ..	8		1250 00	3	7	175	18
Linn.....	120	142	Yes..	No ..	6	1	1250 00	7	82	1888	189
Louisa.....	85	97	No ..	No ..	4		1250 00				
Lucas ..	84	84	Yes..		2		1250 00	2	5	115	
Lyon	55	64	Yes..	Yes..	14	1	1250 00	1	4	106	
Madison.....	117	117	Yes..	Yes..	4		1250 00				
Mahaska	75	75	No ..	No ..	5		1250 00	2	22	587	27
Marion.....	60	68	Yes..	Yes..	9		1250 00	1	14	296	7
Marshall.....	215	225	No ..		2		1250 00	7	22	542	88
Mills	70	70	Yes..	No ..	2		1250 00				
Mitchell.....	184	180	Yes..	No ..	24		1250 00	5	25	521	21
Monona	158	175	Yes..	Yes..	5	1	1250 00				
Monroe	94	94	No ..	Yes..	8	2	1250 00				
Montgomery.....	125	150	Yes..	No ..	4		1250 00				
Muscatine	88	176	Yes ..	No ..	8		1250 00	4	11	460	81
O'Brien.....	146	232	Yes..	No ..			1250 00	1	2	94	17
Osceola.....	90	120	Yes..	Yes..	10		1250 00	4	7	250	6
Page.....	182	192	Yes..	No ..	9		1250 00	2	88	1018	75
Palo Alto.....	72	75	Yes..	Yes..	9		1250 00	1	8	257	4
Plymouth	125	182	Yes..		9		1250 00	6	24	805	7
Pocahontas.....	91	93	Yes..	No ..	1		1250 00				
Polk.....	95	109	No ..	No ..	12	2	1500 00	10	253	6151	781
Pottawattamie.....	125	170	No ..	No ..	9	2	1800 00	6	80	1118	50
Poweshiek.....	78	78	No ..	No ..	15		1250 00	1	40	580	56
Ringgold.....	68		Yes..	Yes..	8		1250 00				
Sac.....	74	85	Yes..	No ..	2		1500 00	1	8	160	2
Scott	121	140	Yes ..	No ..	8		1490 00	12	66	1545	102
Shelby.....	100	300	Yes..	Yes..	100	1	1250 00				
Sioux.....	80	82	Yes..	No ..	8		1250 00	6	22	501	41
Story.....	90	98	Yes..	Yes..	14		1250 00	1	95	1412	128
Tama.....	102	180	No ..	Yes..	20	1	1250 00	8	19	488	14
Taylor	57	67	Yes..	No ..	6	1	1250 50				
Union.....	122	181	Yes..	Yes..	5		1250 00	1	4	268	
Van Buren.....	9	9	Yes..	Yes..	1	1	1250 00				
Wapello.....	74	78	No ..	No ..			1296 00	8	18	519	100
Warren.....	115	180	Yes..	Yes..	8		1250 00	1	84	779	87
Washington.....	85	87	No ..	Yes..	1		1250 00	4	18	420	88
Wayne	169	175	Yes..	Yes..	6		1250 00				
Webster	121	199	Yes..	No ..	2		1250 00	8	85	948	91
Winnebago.....	92	120	Yes ..	No ..	2		1250 00	1	8	126	18
Winnebiek.....	85	108	No ..	Yes..	5	1	1250 00	9	53	1741	284
Woodbury.....	121	142	Yes..	Yes..	8		1562 50	7	88	2150	166
Worth.....	102	182	Yes..	Yes..	4		1250 00				
Wright.....	201	296	Yes..	Yes..	56		1250 00	1	6	140	5
Total.....	9452	11465			800	81	1272 62	283	1988	50534	4190

ABSTRACT [D]—CONTINUED.

SUMMARY OF SUPERINTENDENTS' WORK, 1904.

ABSTRACT [D]—CONTINUED.

SUMMARY OF SUPERINTENDENTS' WORK, 1904.

ABSTRACT [E]—

TEACHERS' .

Adair	Greenfield	August	1	2	1	12	168	184	...
Adams	Corning	June	20	2	1	18	180	148	...
Allamakee	Waukon	August	1	2	2	12	179	191	...
Appanoose	Centerville	August	8	2	2	41	182	222	...
Audubon	Audubon	July	11	3	1	6	188	184	...
Benton	Vinton	August	1	1	2	23	246	279	...
Black Hawk	Waterloo	August	16	2	2	12	174	188	...
Boone	Boone	August	16	2	2	23	197	220	...
Bremer	Waverly	July	11	2	2	6	121	127	...
Buchanan	Independence	July	25	1	2	14	162	176	...
Buena Vista	Storm Lake	August	1	2	2	6	170	176	...
Butler	Clarkeville	August	8	2	2	26	173	196	...
Calhoun	Rockwell City	August	6	1	2	9	169	175	...
Carroll	Carroll	June	20	2	2	17	190	216	...
Cass	Atlantic	June	20	2	1	5	165	190	...
Cedar	Tipton	June	6	2	2	15	153	168	...
Cerro Gordo	Mason City	August	16	2	2	17	223	240	...
Cherokee	Cherokee	June	20	2	2	13	203	216	...
Chickasaw	New Hampton	July	25	2	2	6	133	159	...
Clarke	Osceola	July	11	2	1	20	107	127	...
Clay	Spencer	July	16	2	2	4	124	129	...
Clayton	Elkader	August	1	2	2	29	312	241	...
Clinton	Clinton	August	22	1	2	13	316	291	...
Crawford	Denison	August	8	2	2	7	312	219	...
Dallas	Adel	August	8	1	1	39	310	249	...
Davis	Bloomfield	August	18	2	2	45	99	141	...
Decatur	Leon	June	20	2	2	24	122	146	...
Delaware	Manchester	March	23	1	1	3	126	128	...
Des Moines	Burlington	June	20	2	2	17	170	187	...
Dickinson	Spirit Lake	August	16	2	2	3	91	99	...
Dubuque	Dubuque	August	22	2	2	3	292	200	...
Emmet	Etherville	August	22	1	2	8	107	115	...
Fayette	West Union	August	1	2	2	22	124	206	...
Floyd	Charles City	June	13	2	2	4	151	155	...
Franklin	Hampton	July	13	2	2	16	156	172	...
Fremont	Sidney	July	13	2	2	13	120	133	...
Greene	Jefferson	June	20	2	2	10	182	143	...
Grundy	Grundy Center	August	15	2	2	13	121	134	...
Guthrie	Guthrie Center	August	1	2	2	22	158	180	...
Hamilton	Webster City	July	11	2	2	23	184	207	...
Hancock	Britt	August	15	1	2	13	141	154	...
Hardin	Eldora	August	8	2	2	24	188	212	3
Harrison	Woodbine	August	1	1	1	7	130	137	...
Henry	Mt. Pleasant	June	20	2	2	12	148	160	2
Howard	Cresco	March	23	2	2	12	124	133	...
Humboldt	Humboldt	August	1	2	2	6	157	163	...
Ida	Ida Grove	March	24	2	2	10	127	137	...
Iowa	Marengo	July	13	2	2	23	184	206	...
Jackson	Maquoketa	August	15	1	2	9	151	160	...
Jasper	Newton	August	1	2	2	29	295	238	...

REPORTS FOR 1904.

NORMAL INSTITUTE.

INSTITUTE FUND.

95 48	241	84	50	575 20	815 00	20 00	40 20
219 48	267	148	50	597 48	415 00		172 48
104 50	267	191	50	727 48	370 00	85 48	292 00
23 25	274	228	50	734 50	404 00	84 00	184 50
		194	50	490 55	385 80	59 75	58 10
194 05	282	279	50 9 00	794 05	408 00	87 55	318 50
260 79	288	186	50	899 79	588 00	97 80	254 48
5 21	289	220	50 94 04	785 25	648 25	80 00	7 00
	295	197	50 50 29	498 39	405 00	87 39	
180 48	295	176	50	691 48	580 00		111 48
0 87	349	176	50	675 37	322 50	55 20	97 67
191 00	344	196	50 20 00	731 00	670 00	84 30	26 70
189 59	364	175	50	727 58	445 50	88 08	200 00
48 19	369	218	50 14 00	698 19	474 25	151 95	1 90
196 50	386	190	50	752 50	555 00	45 00	182 50
576 98	272	188	50	1086 98	610 00	40 00	416 98
30 42	397	340	50	707 42	696 00	7 50	
649 47	311	216	50	925 47	537 25	6 50	891 66
95	340	189	50	429 93	415 00		14 93
17 07	280	127	50	444 07	806 00	49 24	95 23
69 99	296	126	50	568 99	480 00	35 00	108 99
788 96	369	241	50	1418 96	680 00	128 18	690 83
344 74	470	281	50 9 00	1104 74	671 97	101 25	331 69
120 08	420	219	50 50	809 58	605 72	81 30	128 56
1 00	268	249	50 1 00	699 68	597 00	55 00	17 68
10 04	197	141	50 47 00	485 64	396 00	33 00	9 04
17 30	206	146	50 12 30	620 50	505 00	15 50	
14 68	219	188	50	421 68	318 50	5 00	96 18
109 67	344	127	50	590 67	298 50	72 40	126 77
3 89	172	90	50	228 50	300 00	18 35	10 34
55	362	300	50	693 55	640 00	41 75	80
22 78	196	115	50	376 78	337 50	38 60	10 76
79 40	376	308	50	632 00	516 98	22 00	98 04
188 12	298	165	50	877 40	875 00	25 00	177 40
106 96	379	172	50	708 12	525 00	54 06	127 07
		183	50	559 96	447 25	13 50	11 21
198 10	301	142	50	676 10	498 00	35 00	125 10
165 69	311	184	50	500 69	447 00	53 75	94
322 50	371	180	50	928 50	507 75	56 30	359 45
27 00	297	207	50	581 00	508 50		77 50
186 60	331	154	50	703 60	448 50	39 50	218 60
221 00	360	212	50	843 00	545 00	73 00	324 00
265 44	317	187	50	789 44	410 61	71 80	307 08
	278	160	50 118 99	601 69	525 00	76 89	
82 34	269	138	50 07 20	588 34	448 25	38 75	53 54
178 84	280	168	50	630 84	405 75	26 22	196 86
119 00	179	137	50 125 00	670 00	580 00	20 00	130 00
14 99	315	206	50	581 99	540 00	50 00	11 99
248	160	50		456 00	393 25	40 50	35 25
515	226	50		661 60	730 00	106 66	30 45

ABSTRACT [E]
TEACHERS'

REPORT FOR 1904.—CONTINUED.

NORMAL INSTITUTE.

INSTITUTE FUND.

RECEIPTS.					Total.	EXPENDITURES.		
On hand at last report.	Examination fees.	Registration fees.	State appropriation.	County appropriation and sundries.		Instruction and lectures.		
\$ 305 61	\$ 358	\$ 140	\$ 50		\$ 958 61	\$ 470 00	\$ 35 00	\$ 155 61
12 69	379	215	60	61 11	718 00	688 00	86 00	
45 72	805	100	50		869 72	860 00	70 85	148 87
1 00	480	238	50		704 00	609 00	95 00	
531 78	451	240	50		1078 78	782 80	98 00	208 98
123 84	207	102	50		601 84	545 85	46 50	208 49
717 06	502	471	50		1740 08	787 00	98 05	354 87
	222	150	50		428 00	815 00	85 85	42 15
5 94	228	120	50		420 94	260 00	7 00	158 94
150 50	308	134	50		588 50	487 50	12 00	86 00
110 02	341	182	50		688 02	425 00	65 25	208 87
45 42	480	220	50		777 42	545 00	100 80	71 98
44 41	385	164	50		584 41	375 00	94 08	128 72
780 25	298	258	50		1481 25	848 00	58 40	558 85
42 17	200	140	50		482 17	307 28	47 48	17 45
94	191	114	50	181 78	457 68	411 00	38 88	44 81
845 00	275	187	50		887 00	421 75	76 10	889 15
78 19	248	149	50		580 19	513 50		7 69
115 79	247	154	50		568 79	497 00		71 79
	256	184	50		488 00	389 80	64 51	88 69
37 70	888	165	50		505 70	491 05	86 00	68 65
84 17	194	108	50	00 00	468 17	325 00	108 04	41 12
102 94	340	167	50		680 94	408 50	94 98	168 46
2 00	288	171	50		519 00	450 00	55 00	14 00
186 20	237	175	50		708 20	330 00	87 00	296 20
22 07	267	126	50		505 87	440 00	68 62	9 05
138 29	788	374	50		1580 29	764 98	647 00	108 27
271 58	678	340	50		1889 58	881 00	136 54	881 90
45 20	311	155	50	10 00	571 20	350 80	48 84	1 87
5 64	357	237	50	40 50	640 14	486 00	71 50	78 64
30 70	887	184	50		681 70	488 50	35 40	118 80
422 07	388	326	50	9 30	1186 97	484 25	149 00	618 72
88 00	268	156	50		507 00	478 00	38 00	6 00
158 78	400	147	50	276 10	1028 88	889 48	41 45	187 88
49 50	388	198	50		688 50	480 00	90 85	182 65
114 15	372	241	50		777 15	545 00	77 55	154 83
78 70	358	127	50	71 00	686 70	498 40		168 80
781 05	288	143	50		1207 05	504 50	88 00	680 15
126 02	240	145	50		561 02	381 80	30 18	199 87
215 07	489	212	50		919 07	555 00	88 00	276 07
222 84	279	146	50		700 84	405 00	40 75	255 09
848 44	375	220	50		993 44	605 00	64 75	888 69
29 80	238	180	50		557 80	399 80	48 80	114 00
417 84	408	228	50		1089 88	604 00	44 80	880 28
17 95	228	106	50		426 95	356 00	50 85	18 80
189 89	388	228	50		850 89	517 50	107 50	225 89
8 11	378	228	50		654 11	370 00	78 88	11 78
49 85	147	77	50		328 85	240 00	18 00	71 85
15 25	888	190	50		589 25	515 00	55 65	18 00
\$ 12215 86	\$ 21228	\$ 18888	\$ 4080	\$ 12 2 08	\$ 60604 84	\$ 48007 24	\$ 6071 08	\$ 14895 18

ABSTRACT [E]

TEACHERS' NORMAL INSTITUTES.

COUNTIES.	CONDUCTORS.	INSTRUCTORS.
Adair.....	Ella C. Chantry....	Adam Pickett, W. R. Andrews, H. D. Smith, J. C. Hagler, L. N. Gerber, Josephine Knox.
Adams	A. B. Lewis	J. E. Stout, G. A. Axline, L. W. Fike, J. A. Griffith, F. J. Resler.
Allamakee.....	J. E. Mills	O. P. Colgrove, Arthur Wilson, E. J. Hook, Louise Minert, Jennie Hallingby, H. A. Dwelle.
Appanoose.....	F. E. King.....	G. W. Bryan, P. B. Woods, Wm. Solomon, H. H. Laughlin, Oraini V. Swift.
Andubon	Arthur Farquhar..	D. P. Repass, F. A. Nims, P. B. Woods, F. P. Hocker, Ella M. Stearns.
Benton.....	O. B. Lowe	Grace S. Burt, Blanche Goudy, John Sogard, George H. Betts.
Black Hawk....	A. T. Hukill.....	L. H. Minkel, Lydia Hinman, C. B. Stein, F. H. Bloodgood, Lura Phillips, Fannie A. Palmer.
Boone	R. R. Cobb.....	J. C. King, D. M. Kelly, E. L. Colburn, E. L. Meek, Clara E. Thompson, Effie Shuneman.
Bremer.....	John T. Remick....	W. F. Cramer, T. J. Durant, Cap E. Miller, Alice Cary Wilson, Elizabeth Conner.
Buchanan.....	M. J. Goodrich....	F. H. Bloodgood, Clara M. Travis, Agnes Patterson, Eva L. Owen, Mildred Goodrich, Ruby L. Peck, Ida Hullerman.
Buena Vista....	J. E. Durkee.....	J. H. O'Donahue, T. B. Norris, Agnes N. Hannum, Alice Wilcox, E. L. Coburn.
Butler.....	Ida F. Leydig.....	G. H. Betts, C. A. Fullerton, J. F. Overmyer, P. F. Voelker, W. H. Bender, J. L. Zwickey, Edith Reid, Maud Summers.
Calhoun	W. R. Sandy.....	P. O. Colgrove, Mrs. H. R. Reynolds, G. W. Young, Bertha Cadwell, D. Patten, L. C. Bryan, Theodore Saam.
Carroll.....	W. J. Barloon.....	W. P. Johnson, F. L. Hoffman, O. J. Johnson, Julia Scurry, Alberta Scanlan, A. N. Palmer, F. H. Figert.
Cass	J. J. McConnell....	W. E. Salisbury, D. O. Neifert, W. J. Cattell, Frank Lindeman, Anna O. Temple, Effie Shunerman.
Cedar.....	George H. Kellogg..	O. Ray Aurner, R. B. Crone, L. O. Curtis, J. H. Morgan, E. L. Coburn, Elizabeth Bain, Nellie Smith.
Cerro Gordo....	P. O. Cole	S. S. Wyand, H. H. Holmes, Mary G. Long, Harriet Garton, Clara Klinefelter, D. A. Thornburg, W. H. Bender.
Cherokee	Agnes J. Robertson	W. O. Riddell, G. E. Finch, A. V. Storm, F. H. Bloodgood, Maud Summers, Margaret Smith.
Chickasaw	W. P. Johnson.....	C. L. Woodfield, E. O. Hill, T. J. Wormley, F. A. Schentz, Ida Fitzsimmons.
Clarke	A. M. M. Dornon..	A. E. Parsons, Mrs. Ingletta, F. Ware, Miss Katherine Davis.
Clay.....	H. F. Fillmore.....	A. H. Avery, A. P. Heald, O. J. Boyington, E. G. Clarke, Mary Riley.
Clayton.....	O. J. Adam.....	S. H. Sheakley, G. E. Finch, F. H. Bloodgood, J. N. Dahm, Chas. F. Pye, Alice Kingsley.
Clinton	George E. Farrell..	John A. Keith, W. I. Crane, Anna Donovan, Alice Rogers, B. J. Heflin.
Crawford	F. L. Hoffman	W. O. Van Ness, J. R. Bagge, Zoe O. Patterson, J. H. Beveridge, W. J. Barloon, W. B. Thornburg, Charlotte Sweeney, H. H. Savage.
Dallas	R. F. Wood	C. F. Barrows, W. S. Athearn, Alice Hopper, W. H. Gemmill, Pearle Britton, R. C. Barrett, E. J. Pollock, J. W. Graham.
Davis.....	W. S. Athearn....	Will Fortune, O. N. Spicer, Wilbur York, Miss Charlotte Sweeney.
Decatur.	Eli Hutchinson....	R. A. Harkness, F. P. Reed, J. R. Cash, A. L. Lyon, J. M. Howell, J. M. Pierce, Miss Mabel Horner.
Delaware.	George H. Betts....	O. B. Stein, Miss Dolly Twitchell.
Des Moines.....	Howard A. Mathews	A. T. Hukill, T. M. Cevenger, F. M. Fultz, Anna L. Robbins, W. L. Sheetz.

ABSTRACT [E]—CONTINUED.

COUNTIES.	CONDUCTORS.	INSTRUCTORS.
Dickinson.....	W. F. Davidson....	Wm. Bell, H. H. Savage, M. R. Hassel, O. J. Bay- ington, Mrs. Evangeline Robinson.
Dubuque.....	P. J. Schreeder....	A. E. Winship, Alice Hopper, A. A. Weaver, G. W. Fields, J. M. Walsh, T. M. Irish, F. T. Oldt, L. L. Lightcap.
Emmet.....	W. A. Willis	W. V. Howard, A. P. Hargrave, A. V. Storm, W. H. Bender, Ida A. Davis.
Fayette.....	H. L. Adams.....	A. E. Bennett, E. L. Coffeen, J. E. Stout, Margaret McCauley, Dolly Twitchell.
Floyd.....	Frederick Schaub..	F. E. Hirsch, W. F. Finke, W. G. Babb, A. L. Haines, E. F. Fisher, Elizabeth Carmicheal, Mary J. Crowell.
Franklin.....	S. E. Campbell	D. A. Thornburg, A. T. Hukill, O. W. Maxwell, Margaret L. Weber, Clara M. Klinefelter.
Fremont.....	Mattie Lee A. Lair.	F. O. Ensign, A. C. Fuller, G. U. Gordon, W. B. Gregg, Frances Wright, I. E. Olayton, Ellen Wing.
Greene.....	A. J. Oblinger	Anna L. Wertz, Bruce Francis, H. A. Glackemeyer, Emma Ankeny, F. E. Palmer.
Grundy....	J. D. Adams.....	J. E. Stout, W. D. Wells, O. L. Love, Hattie Moore Mitchell.
Guthrie.....	M. P. Kenworthy..	F. E. Palmer, A. A. Taylor, B. E. Finley, M. F. Moine, Miss Kate McGuire, Miss Edna Bonebroke.
Hamilton.....	L. N. Gerber.....	J. C. Hagler, Elizabeth Bain, Ella Chantry, J. M. Holaday, J. T. Bradshaw, E. B. Lee.
Hancock.....	A. M. Deyoe.....	O. P. Colgrove, O. C. Nutting, B. W. Hoadley, W. J. Jerome, Bertha Cadwell, May G. Long, F. C. Butler.
Hardin.....	Ella B. Chassell....	A. O. Newell, Milo Hunt, A. J. Cavana, Miss Mae J. Evans, Miss Della Bishop, Miss Julia Scurry, Miss Macha Vance.
Harrison.....	D. E. Brainard.....	O. E. Blodgett, J. H. Beveridge, H. E. Wheeler, O. W. Stone, Gertrude Whiting.
Henry.....	Annie E. Packer...	C. W. Ornikshank, David Williams, N. E. Johnson, Jesse Benjamin, P. O. Hayden, Eugenia Kim- ball, Amanda Kidder.
Howard.....	G. A. Oliver.....	G. E. Finch, L. E. A. Ling, A. B. McCook, Mrs. O. J. Laylander, M. Alda Tate, Harriet Carpenter.
Humboldt	Clarence Messer...	O. S. Cory, Mrs. D. F. Coyle, Ida Fitzsimmons.
Ida.....	J. C. Hagler.....	Maud Summers, Anna Wertz, W. B. Munson, W. F. Barr, L. N. Gerber, Walter Athearn.
Iowa.....	H. T. Ports.....	A. E. Winship, O. T. Bright, W. H. Bender, C. B. Stein, O. H. Carson, Bruce Francis, Mrs. Fran- ces E. Clarke, Mrs. Hattie M. Mitchell.
Jackson.....	W. F. Barr.....	M. Jaynes, Alice K. Bovard, Alice O. Wilson, Cer- nelia Collins.
Jasper.....	J. E. Roberts.....	W. N. Clifford, W. O. Riddell, E. J. H. Beard, Kate Mulhern, Hattie Moore Mitchell, Mrs. T. M. Rodgers.
Jefferson	Anna White.....	W. N. Clifford, S. A. Power, Cora Ball, Hattie Moore Mitchell.
Johnson	W. A. Willis	A. G. Smith, O. E. Smith, F. L. Mahannah, R. W. Sles, Mrs. Alice R. Davies, Miss Laura Graham.
Jones.....	Clifford B. Paul....	Orvill- T. Bright, O. E. Buckley, J. E. Cameron, Myrtle Le Compte, Julia Scurry.
Keokuk.....	Cap E. Miller.....	A. E. Winship, Mrs. Alice Mendenhall, T. M. Clev- enger, O. E. Humphries, Mrs. H. M. Mitchell, O. T. Bright, Manning Jaynes, Mrs. Retta Min- teer.
Kossuth.....	C. H. Belknappp....	A. E. Bennett, H. C. Jones, H. L. Cofeen, O. W. Weeks, Josephine Burling, Charlotte Sweeney,
Lee.....	E. O. Lynn	W. L. Barrett, O. W. Cruishank, G. W. Walters, P. C. Hayden, Alice O. Wilson, Minne Dee Wright.
Linn.....	J. E. Vance	W. I. Orane, Emma Beenk, G. E. Finch, Hattie Eggleston, J. E. Cameron, J. R. Bagley.
Louisa.....	C. R. Wallace.....	A. M. M. Dornon, L. T. Hill, J. W. McCulloch, Eva L. Owep, Lillian Bridgeford.
Lucas.....	Laura Fitch	W. F. Chevalier, W. S. Rowley, Minnie Dungan, Della Courtelyou.
Lyon.....	W. S. Wilson	J. L. Mishler, C. R. Scroggie, Ida Fesenbeck, Mattie L. Larkin, Ethel G. Pike.
Madison.....	T. H. Stone.....	O. E. Smith, C. E. Douglas, W. H. Monroe, H. D. Smith, Effie Turner.

ABSTRACT [E]—CONTINUED.

COUNTIES.	CONDUCTORS.	INSTRUCTORS.
Mahaska	J. P. Dodds	Maud Summers, G. H. Bigelow, Anna P. Tucker, Wm. Radelbaugh, J. E. Cameron, L. F. Bonnett, L. C. Rumsel.
Marion	W. H. Lucas	S. G. Richards, W. O. Farmer, Martha Firth, Zoe Patterson.
Marshall	Mary E. Hostetler.	Frank W. Darling, E. U. Graff, W. I. Crane, Alice B. Lincoln, Harriet Garton, W. N. Clifford, Nettie A. Sawyer.
Mills	W. M. Moore	L. D. Salisbury, J. D. Reid, F. C. Ensign, Fannie O. Ames, Ellen J. Wing, Allie Cambelle.
Mitchell	Jay A. Lapham	O. P. Colgrove, G. W. Sawyer, John P. Lund, Fred Schaub, H. A. Longley, Dorothy Nedland, Maggie Tobin.
Monona	F. E. Lark	C. E. Shelton, I. W. Howerth, N. V. O'Shea, J. R. Bagley, Eva Kendall.
Monroe	R. B. Spencer	H. C. Hollingsworth, G. W. Walters, A. F. Ewers, Wm. Solomon, Maisey Schreiner, N. Florence Littlefield.
Montgomery	Mabel G. Hanna	G. S. Dick, E. B. Wickersham, D. O. Neiford, W. B. Gregg, Nellie Barton, Stella Woodford.
Muscatine	L. G. Focht	R. W. Leverich, Linnie Harris, Madge Babbett, Mrs. Emma Luse.
O'Brien	Nellie Jones	W. N. Clifford, O. R. Scroggie, O. M. Elliott, S. H. Buntley, Emma O. Moulton, Josephine Harwood.
Osceola	J. P. McKinley	W. A. Athearn, O. R. Scroggie, L. B. Parsons, Charlotte Sweney, Alberta Scanlon.
Page	George H. Colbert.	Geo. H. Betts, F. C. Ensign, H. M. Wheeler, W. E. Salisbury, Luella Kittle.
Palo Alto	H. E. Blackmar	H. A. Welty, Chas. B. Stein, I. C. Welty, A. H. Avery, Ethel Rundell.
Plymouth	I. C. Hise	A. H. Bigelow, S. G. Richards, L. H. Wright, Nettie Snidon.
Pocahontas	U. S. Vance	F. L. Cassidy, J. J. Rae, Mary Riley, C. Jay Boyington, W. H. Reeve.
Polk	Z. C. Thornburg	Adda Blakeslee, W. N. Hailman, W. H. Dudley, M. L. Bartlett, C. W. Lyon, W. F. Barr, Alice Hopper.
Pottawattamie	O. J. McManus	I. W. Howerth, H. E. Blackmar, S. L. Thomas, F. C. Ensign, Georgia Alexander, M. Lucille Porterfield, H. E. Colby, M. E. Crozier, W. J. Flint, W. N. Clifford.
Poweshiek	P. A. McMillen	D. A. Thornburg, Eugene Henely, C. E. Douglass, Wm. Solomon, Oral Neely, Lura Phillips.
Ringgold	Lora L. Richardson	W. F. Barr, W. L. Barrett, J. W. Wilkerson, J. D. Cherryholmes, Etta E. Kinsell, Florence Knox.
Sac	G. W. Lee	H. C. Coe, T. B. Hutton, C. F. Garrett, Elizabeth Platt, Bertha Cadwell.
Scott	J. H. Jacobs	P. O. Hayden.
Shelby	G. A. Luxford	G. E. MacLean, W. S. Athearn, W. O. Wilcox, Maude Summers, Margaret Moore, James Seymour, J. J. Louis, Benjamin Boardman.
Sioux	A. V. Storm	J. L. Zwickey, S. W. Mountz, S. T. May, O. W. Herr, Alice C. Wilson, Philip Soulen.
Story	I. C. Welty	L. B. Carlisle, H. A. Welty, A. B. Alderman, Blanche Goudy, Anna Odland.
Tama	D. E. Brown	E. J. Hoenshel, E. C. Meredith, Hattie Moore Mitchell, H. B. Shoemaker, J. B. Young, W. G. Martin, W. A. Pye, O. E. Fleming.
Taylor	Frank E. Howard	E. E. Kuhn, Jessie Himes, Clide O. Fisher, Mrs. Victoria Faith, Lillian McCracken.
Union	Frank M. Abbott	W. I. Crane, I. W. Howerth, J. R. McComb, F. E. Howard, Lura Randolph, Lillian L. Bridgeford.
Van Buren	David Williams	A. T. S. Owen, S. Marion Becker, Anna L. Wertz.
Wapello	Emma S. Nye	Elizabeth Bain, H. H. Holmes, H. H. Barrows, Julia Mahoney, Mae J. Evans, Calla M. Hand, Lucile Major.
Warren	J. W. Radebaugh	O. E. Smith, F. E. Palmer, E. L. Miller, Alexander Emalie, George Eaton, Binnie McKitterick, Dr. Charles E. Shelton.
Washington	Cora E. Porter	R. B. Crone, R. D. Daugherty, C. B. Stein, Florabel Patterson, Hattie Moore Mitchell.
Wayne	L. Maud Elmore	W. N. Clifford, W. P. Johnson, W. L. Pugh, Hattie Moore Mitchell, Mrs. M. L. Weber.

ABSTRACT [E] CONTIBUED.

COUNTIES.	CONDUCTORS.	INSTRUCTORS.
Webster	A. L. Brown.	W. N. Hailman, Alice M. Cooley, Frank Darling, Arnold Tompkins, O. T. Bright, E. L. Coburn, C. V. Findlay.
Winnebago	B. C. Barrett	H. O. Bateman, W. H. Whitford, F. O. Smith, Mrs. B. Booth, Mrs. C. L. Prescott.
Winneshek	Ellis J. Hook	E. L. Coffeen, Ella Treat, H. A. Dwelle, Julia Scurry, Julia Breckenridge, T. I. Gifford, H. C. Johnson.
Woodbury	E. A. Brown	J. W. Mather, L. H. Harvey, Helen I. Loveland, J. G. Hobson, W. M. Stevens, F. H. Garver, Kate I. Hubbard.
Worth	O. E. Gunderson ..	H. A. Dwelle, L. J. Reed, J. O. Briggs, Fannie Quaife.
Wright.	Angus Macdonald..	Laura E. Martin, Jennie Wolcott, E. W. Fellows, J. G. Grundy, Elizabeth Bain, Lura Phillips, F. Tellier.

STATISTICS OF CITY SCHOOLS.
COMPARATIVE SHOWING FOR 1903-1904.
CITIES HAVING A POPULATION OF 3,000 OR MORE BY THE CENSUS OF 1900.

* Included in Clinton.

STATISTICS OF CITY SYSTEMS.

COMPARATIVE SHOWING FOR 1903-1904.

CITIES AND TOWNS IN IOWA HAVING MORE THAN 1,500 AND LESS THAN 3,000 POPULATION BY THE CENSUS OF 1900.

01

Albia	2889	980	886	688	52	55	48	31	60	22	344	31	9	H. O. Hollingsworth	11400
Algona	2911	1021	914	644	68	02	22	1	57	20	48	55	9	J. F. Overmeyer	1200
Ames	2422	929	788	648	70	79	10	2	16	24	58	72	9	O. R. Scroggie	1500
Anamosa	2691	945	711	526	58	48	91	1	58	15	48	09	9	O. E. Buckley	1200
Andahon	1896	546	499	381	64	75	00	1	56	11	49	09	9	H. P. Hooker	1200
Avoca	1577	607	484	350	58	04	97	2	23	18	49	61	9	M. E. Croster	1200
Bedford	1977	585	568	470	80	87	58	2	09	15	52	57	9	Frank E. Howard	1200
Bellevue	1607	567	254	195	84	43	50	1	06	7	41	50	9	B. S. Asquith	1200
Bloomfield	2106	549	171	140	31	30	00	1	68	12	40	42	6	J. F. Tycamore	600
Britt	1540	458	388	311	64	76	49	2	08	12	45	74	9	B. W. Roadley	1000
Carroll	2882	1221	582	445	36	55	00	2	28	17	50	62	9	W. P. Johnson	1400
Clear Lake	1708	506	419	354	70	96	00	1	87	10	48	50	9	E. G. Bailey	1000
Colfax	2058	815	699	518	69	92	50	1	53	14	47	48	9	J. L. Mishler	1200
Corning	2145	662	664	500	75	99	97	1	97	18	45	83	9	G. A. Axline	1200
Cresco	2908	829	680	499	69	74	65	2	21	17	47	79	9	L. E. A. Ling	1200
Denison	2771	1808	749	601	46	77	54	1	85	21	50	71	9	H. H. Savage	1800
Edon	1850	556	400	356	64	64	75	1	54	12	50	91	9	O. E. Akers	945
Edora	2253	665	546	412	62	19	92	1	08	13	50	17	9	Milo Hunt	1250
Emmetsburg	2881	742	544	415	56	58	75	2	00	16	47	00	9	H. E. Blackmar	1200
Forest City	1738	547	514	399	73	51	00	1	00	14	45	02	10	H. O. Bateman	1250
Guttenburg	1620	628	382	313	34	17	14	1	50	8	45	62	10	Charles F. Pye	900
Hamburg	2079	567	508	410	72	41	97	1	79	13	46	19	9	J. E. Clayton	1200
Hampton	2727	781	606	496	66	00	05	2	06	17	51	04	9	O. W. Maxwell	1400
Harlan	2422	857	737	645	71	05	00	1	70	20	46	50	9	O. W. Herr	1200
Hawarden	1810	654	577	445	69	84	97	1	79	14	47	50	9	B. T. May	1200
Ida Grove	1969	689	558	516	75	65	00	2	68	16	47	19	9	P. F. Volker	1400
Iowa Falls	2340	976	752	620	64	66	04	1	78	19	50	81	9	Anna L. Burdick	1250
Jefferson	2601	699	682	612	73	77	50	1	78	16	50	87	9	F. E. Palmer	1850
Lake City	2708	654	670	517	79	25	00	1	64	16	47	42	9	Theodore Seam	1000
Lamoni	1540	514	481	351	68	95	00	1	58	1	42	27	9	Hugh S. Buffum	810
Leon	1906	563	562	393	71	22	49	1	49	10	40	25	9	J. M. Pierce	1000
Manchester	2897	775	674	506	65	78	95	1	78	20	42	05	9	Amy Boggs	1100
Marengo	2097	629	532	436	70	62	50	1	97	14	48	72	9.5	C. H. Carson	1400
Monticello	2104	640	600	446	65	35	00	1	25	14	48	14	9	C. McCracken	1200
Mount Ayr	1729	552	518	391	71	68	40	1	59	12	48	75	9	Adam Pickett	1200
Mount Vernon	1623	456	316	240	58	15	07	1	70	8	45	42	9	L. T. Newton	1000
Mystic	1758	649	545	351	54	02	98	1	11	9	55	00	9	John O. DeMar	675
Nevada	2472	670	618	475	71	20	50	1	85	16	45	50	9	L. B. Carlisle	1600
New Hampton	2889	775	522	408	58	59	21	1	92	12	42	67	9	O. L. Woodfield	1200
Osawa	1968	608	525	393	48	85	09	1	80	19	48	00	9	E. T. Sheppard	1100
Osage	2784	775	638	498	68	46	99	1	91	18	46	08	9	George H. Sawyer	1200
Osceola	2506	808	671	522	65	11	00	1	54	16	44	87	9	A. M. M. Dornon	1180
Pella	2923	987	644	475	48	50	00	1	89	14	39	99	9	W. C. Farmer	1000
Rock Rapids	1706	589	576	435	73	50	00	1	95	14	50	34	9	W. S. Wilson	1440
Sac City	2059	706	662	519	74	87	50	1	32	12	42	07	9	O. F. Garrett	1150
Seymour	1708	682	488	425	51	37	50	96	8	34	69	9	A. P. Speers	810	
Sheldon	2882	655	768	626	73	09	25	1	78	20	47	35	9	O. M. Elliott	1050
Sigourney	1982	644	554	433	67	44	12	1	79	15	40	77	9	W. O. Mullin	1000
Storm Lake	2169	786	656	521	71	80	7804	87	1	07	15	50	90	J. H. O'Donoghue	1075
Stuart	2079	619	508	474	77	98	8275	00	1	81	16	51	29	Clarence McCracken	1200
Tama	2649	708	542	432	61	80	6861	72	1	87	13	49	50	O. E. Fleming	1200
Tipton	2513	692	589	430	62	81	7851	25	2	06	16	51	00	O. R. A. rner	1200
Toledo	1941	588	430	344	65	80	7464	96	2	41	14	49	52	J. B. Young	1200
Valley Junction	1700	786	656	521	71	96	8810	47	1	75	19	49	08	O. W. Lyon	1200
Villisca	2211	675	609	521	77	78	7685	48	1	60	15	45	00	E. B. Wickerham	1200
Waukon	2183	674	481	390	58	88	6187	50	1	78	12	48	35	H. A. Dwelle	1200
West Liberty	1690	514	497	373	73	80	6816	00	1	98	12	49	00	E. F. Schall	1400
West Union	1885	583	506	406	70	80	5486	28	1	50	13	50	12	L. J. Ayer	1200
West Chester	2746	554	460	470	88	90	5947	75	1	25	15	40	98	J. E. Witmer	1000

GRADED SCHOOLS.

* Plus one-half tuition.

GRADED SCHOOLS—CONTINUED.

GRADED SCHOOLS—CONTINUED.

* P. O. Des Moines.
† See Snow Hill.
‡ \$915.00.

GRADED SCHOOLS--CONTINUED

GRADED SCHOOLS—CONTINUED.

GRADED SCHOOLS—CONTINUED.

NAME OF TOWN.	Population, census of 1900.	Number months school.	Enumeration by							Average salary per month of each teacher.
Lowden	544	9	225	143	100	1 75	B. S. Longerbeam	8	3	\$28 00
Low Moor	818	9	117	90	60	1 90	L. Ella Lukens	2	2	37 50
Lucas	1182	9	351	349	342	1 30	J. W. Jackson	1	1	30 00
Luton	110	9					Mrs E. Castle	1	1	35 00
La Verne	534	9	216	174	140	1 81	B. Gules	4	4	41 25
Lynnville	547	9					A. T. Gifford	3	3	34 00
Macdonia	295	9	170	155	111	1 80	H. L. Cailliet	3	3	44 17
Mackaburg	235	8					E. J. Henney	2	2	36 00
Madrid	1021	9	311	251	190	2 23	E. L. Meek	5	5	46 54
Magnolia	237	9	142	127	92	1 47	C. C. Knoll	2	2	40 00
Malcom	604	9	134	132	124	90	S. H. Wood	4	4	46 00
Maloy	210	8	42	40	33	2 12	Anna Jordan	1	1	30 00
Malvern	1166	9	404	321	250	1 75	L. D. Salisbury	1	1	48 00
Manilla	773	9	262	248	238	1 90	J. C. Richter	7	7	45 43
Manly	350	9	123	95	80	1 62	G. C. Clemmer	2	2	35 00
Manning	1169	9	482	434	351	1 40	C. J. Johnson	12	12	48 34
Manson	1424	9	480	434	325	1 67	G. W. Young	9	9	46 48
Mapleton	1009	9	306	231	220	2 15	W. B. Buckley	2	2	46 25
Marble Rock	673	9					L. E. Eickelberg	4	4	32 00
Marathon	669	8.2	254	238	214	1 37	E. C. Roberts	7	7	48 50
Marcus	718	9	302	167	123	2 05	E. A. Brinton	4	4	42 00
Marne	410	8	143	126	115	1 97	Irving Lynch	3	3	40 00
Martelle		9	59	70	50	1 75	George Johnson	1	1	35 00
Martinsburg	392	8	109	108	98	1 57	W. B. Yeager	2	2	31 00
Marysville	322	8	133	128	98	1 35	Olaf Gilderboom	2	2	55 00
Massena	475	9	183	180	117	1 75	H. B. Hetzel	3	3	43 33
Maurice	240	9	65	60	48	2 70	Allan Van Wechel	2	2	40 00
Maxwell	810	9	311	265	187	1 58	C. W. Kirk	5	5	40 00
Maynard	495	9	100	130	108	1 67	A. G. Peaks	4	4	45 00
McGregor	1498	9.5	453	472	342	1 35	Josephine Harrison	10	10	49 00
McIntire	427	9	191	164	111	1 40	E. M. Fox	3	3	33 30
Mechanicsville	709	9	202	210	152	1 64	Guy H. Scobey	5	5	46 00
Medanpolis	725	9	249	243	190	1 81	T. M. Clevenger	6	6	45 00
Melbourne	346	9	154	125	83	2 05	U. G. Brown	3	3	37 00
Melrose	400	8	211	176	118	1 53	Anna M. Mahon	3	3	35 00
Mento	428	9	159	150	121	1 87	James Lawrey	4	4	53 75
Merriden	442	9	102	118	69	2 21	W. O. Dalley	2	2	45 00
Merrill	389	9	181	122	88	2 19	R. T. Scott	4	4	47 50
Meservey	103	9	63	69	73	2 05	Elizabeth W. Russell	2	2	45 00
Miles	265	9	122	137	96	2 03	W. J. Hunt	3	3	40 00
Milford	445	8	179	164	8	3 33	E. D. Leonard	3	3	43 00
Millersburg	545	8	64	102	73	1 85	A. H. Cutler	2	2	37 50
Milo	545	9	219	212	160	1 61	P. M. Hersom	5	5	41 00
Milton	840	8	343	263	240	1 30	Frank Jarvis	6	6	41 00
Milburn	317	9	165	154	115	1 77	F. H. Figue	4	4	49 90
Minden	328	9	202	161	110	2 18	J. W. Atchley	4	4	41 25
Minchell	243	9	144	158	103	1 90	H. E. La Rue	3	3	40 00
Minchellville	768	9	235	201	154	1 41	Earnest Coad	6	6	47 00
Molok	344	9	161	122	92	1 47	Rue T. Faith	2	2	40 00
Mongoma	384	7	75	53	35	1 53	Margaret Stepheney	1	1	30 00
* Monn		8.5	184	120	64	1 22	John L. Cherney			
Mondamin	784	9	120	140	106	1 75	R. R. Williams	3	3	41 00
Munmouth	241	9	113	142	104	1 54	R. R. Stoddard	3	3	35 70
Morona	651	9	234	221	174	1 65	C. S. Dodds	5	5	41 00
Murroe	217	8	21	195	161	1 78	C. T. Reed	6	6	40 00
Montezuma	1210	9	514	367	331	1 35	C. E. Douglass	1	11	49 00
Montour	542	9	105	115	80	2 67	Viola Ward	3	3	40 00
Montrose	748	8	25	189	130	1 52	G. W. Kennedy	5	5	43 00
Moravia	631	8	241	232	182	1 30	T. B. Markbury	4	4	40 00
Morning Sun	948	9	327	320	246	1 72	L. T. Hill	1	7	46 70
Morrison	170	9	56	65	44	1 88	Ira P. Richmond			
Moscow	203	9	61	55	39	1 61	C. M. Raff	1	1	40 00
Mt Auburn	291	9	65	68	50	1 90	J. W. Jones	1	1	40 00
Mt. Erna	150	8	44	37			G. W. Shoemaker	1	1	35 00
Mt. Sterling	200	9	95	90	65	1 11	Paul E. Wright	1	1	30 00

* P. O. Husted.
+ 1002 1/2.

GRADED SCHOOLS—CONTINUED.

NAME OF TOWN.	Population, census of 1900.	Number months school.	Enrollment between 6 and 21 years in 1904.	Enrolled in school 1903-1904.	Average Attendance.	Average tuition per month for each scholar in average attendance.	NAME OF SUPERINTENDENT OR PRINCIPAL, 1903-1904.	Annual salary.	Number of other teachers.	Average salary per month of month-end teachers.
Plymouth.....	400	9	150	107	84	\$ 90	F. M. McClintock.....	\$ 522		\$ 58 75
Pocahontas.....	922	9	314	220	155	1 00	J. J. Raa.....	675		41 00
Polk City.....	623	9	184	25	25		Lewis H. Andrews.....	480		40 00
Pomeroy.....	910	9	300	270	208	1 00	W. D. Allen.....	700		46 00
Popajoy.....	140	9					Washburn.....	200		40 00
Portsmouth.....	516	9	180	85	57	9 77	Griffin.....	540		45 00
Postville.....	994	9	411	294	248	1 50	Leon.....	700		41 00
Polaski.....	302	9	122	117	98	1 48	W. B. Nerry.....	430		30 00
Prairie City.....	808	9	300	108	145	2 07	Jones.....	720		47 00
Prairieburg.....	216	9	92	92	57	1 50	Brenneman.....	540		45 00
Prescott.....	446	9	161	123	106	2 51	Griffith.....	520		36 00
Preston.....	508	9	220	167	181	1 08	Stowell.....			43 00
Pringhar.....	314	9	225	228	208	1 44	Mitchell.....			41 00
Primrose.....	125	8	77	72	47	1 44	Gerald Ollavan.....			40 00
Princeton.....	455	9	144	120	85	1 68	J. T. Padgham.....			38 57
Promise City.....	254	8	111	150	90	1 44	J. S. Ulm.....			35 00
Quasqueton.....	500	9	167	120	108	1 55	Anna E. Barrett.....			35 00
Quincy.....	300	9	92	92	59	2 48	Gay Olevenger.....			40 00
Radcliffe.....	645	9	214	216	165	1 94	O. F. Kuchua.....			44 00
Ralston.....	75	9	72	56	39	2 50	Emma Reese.....			36 00
Randall.....	117	9	66	53	23	1 62	Lulu Beamer.....			37 50
Randolph.....	373	9	160	171	138	2 24	Allan Peterson.....			47 00
Rathburn.....	270	9	162	82	61	1 31	Nina Mosby.....			40 00
Reasner.....	200	8	76	51	19	2 48	F. B. Wright.....			37 50
Redding.....	311	8	103	98	77	1 72	E. W. Parker.....			35 00
Redfield.....	549	9	230	239	213	1 34	W. J. Pollock.....			50 30
Reinbeck.....	1204	9	481	323	251	2 18	C. O. Jameyson.....			47 50
Remsen.....	395	9	557	145	109	3 05	John Hays.....			51 25
Rhodes.....	476	9	221	171	156	1 32	F. D. Certrigha.....			47 00
Ridgely.....	250	9	133	123	105	1 30	A. L. Halstead.....			41 25
Riceville.....	304	9	135	205	200	1 48	Paul M. Roy.....			37 00
Richland.....	634	9	163	144	124	1 55	W. O. Hicks.....			37 50
Richmond.....	200	9	181	78	61	1 69	Ellen V. Walsh.....			32 25
Ridgeway.....	371	9	123	119	79	1 60	T. R. Cole.....			30 00
Ripley.....	593	9	165	162	124	1 66	H. A. Glackenmeyer.....			41 00
Riverside.....	698	9	178	99	79	2 47	H. H. Hankins.....			40 00
River Sioux.....	378						Bertha M. Dick.....			35 00
Riverton.....	937	9	347	302	154	1 68	O. V. Frasier.....			40 00
Rockford.....	1080	9	313	322	246	1 78	J. C. Sanders.....			43 00
Rock Valley.....	1054	9	605	302	271	1 77	E. P. Crocker.....			44 00
Rockwell.....	880	9	222	120	110	2 31	Fred Mahannah.....			39 00
Rockwell City.....	2222	9	420	308	267	2 16	L. C. Bryan.....			47 37
Rodney.....	178	9	68	87	63	2 40	F. M. Guashee.....			37 50
Rodman.....	180	9	80	78	45	1 28	Josephine Patton.....			36 00
Roland.....	157	9	280	220	178	1 42	J. J. Scott.....	600		40 00
Rolfe.....	994	9	4 8	416	230	1 45	F. L. Cassidy.....	600		47 75
Rome.....	255	7	51	60	47	1 70	Carrie Campbell.....	240		40 00
Rose Hill.....	254	9	188	110	75	1 78	Frank Goutar.....	420		41 00
Rowan.....	312	9	121	119		1 65	F. E. Whitney.....	44		42 00
Rowley.....	280	9	66	56		2 17	Mae L. Toomey.....	5		35 00
Rudd.....	381	9	109	92		1 71	Nellie O. Downs.....	5		32 50
Ruhnele.....	350	7	166	120		1 78	W. J. Bruner.....	5		38 00
Russell.....	638	9	196	207		1 64	B. W. Rowley.....	71		37 00
Ruthven.....	789	9	278	260		1 32	H. A. Walty.....	104		39 50
Rutland.....	315	9	98	79		1 60	Lena Hughes.....	38		39 00
Ryan.....	170	9	120	104		1 51	Isaac Graves.....	34		36 00
Sabula.....	1029	9	311	256		1 30	Eva M. Flemming.....	31		36 50
St. Anthony.....	114	9	78	77		1 56	Mary Harrington.....	24		40 00
St. Ansgar.....	695	9	231	182		1 65	John P. Lund.....	21		36 00
St. Charles.....	412	9	183	170		1 24	Wm. Miller.....	21		31 25
St. Olaf.....	124	8	79	70		1 25	Amy Himes.....	21		30 00
Salem.....	548	8 5	155	123		1 26	F. A. Hill.....	2		30 00
Salix.....	397	9					LeRoy Anderson.....	5		46 57
Saukborn.....	1247	9	422	398	295	1 20	J. J. Billingsly.....	101		44 57
Savannah.....	79	8	125	101	41	2 02	W. L. Evans.....	2		30 37
Schlesville.....	283	9	151	105	69	2 08	F. N. Olaf.....	6		45 00

GRADED SCHOOLS—Continued

GRADED SCHOOLS—Continued.

SPECIAL LIBRARY REPORT.

					Number of libraries provided with libraries.	Number independent districts provided with libraries.
Adair	172 98	96 29	668	52	97	1
Adams	42 66		78	49	65	30
Allamakee	182 79	75 00	98	115	40	76
Appanoose	177 28	48 45	580	86	78	14
Audubon	196 04		857	60	106	
Benton	247 68	112 42	806	65	82	86
Black Hawk	428 06	122 08	2770	76	43	12
Boone	890 64	51 81	668	72	92	47
Bramer	110 88	97 50	407	74	39	49
Buchanan	801 67	190 86	678	55	77	55
Boone Vista	188 89	50 00	1141	182	125	7
Butler	284 70	45 15	744	70	96	38
Cathlamet	507 91	800 00	935	94	133	
Carroll	123 30	41 25	516	28	55	2
Cass	319 81	110 19	648	57	120	7
Cedar	292 29	41 06	584	68	92	32
Cerro Gordo	236 44		668	77	100	20
Cherokee	190 08	409 94	1977	128	126	7
Chickasaw	95 60	87 50	450	40	17	49
Clarke	123 25		97	3	78	24
Clay	169 23	16 50	833	68	121	
Clayton	406 12	65 46	725	96	80	16
Clinton	706 08	98 40	1284	90	130	24
Crawford	251 97	98 58	864	46	111	
Dallas	704 86		1404	97	108	16
Davis				50	34	59
Decatur	228 15	85 75	415	21	52	85
Delaware	278 95		669	121	111	10
Des Moines	70 74	18 80	168	9	25	80
Dickinson	170 88	47 80	473	19	10	1
Dubuque	860 00	143 65	1850	85	57	62
Emmet	79 84		2754	74	71	
Fayette	158 85	800 00	1000	170	108	69
Floyd	247 00	128 00	634	86	86	10
Franklin	262 73	44 05	484	68	102	28
Franklin	249 69	128 89	770	100	94	11
Groene	151 48	5 80	255	75	81	2
Grundy	58 58		172	73	75	20
Guthrie	221 94		468	55	110	4
Hamilton				180	107	25
Hancock	241 49	305 91	980	78	124	
Hardin	514 09	34 00	1186	45	76	56
Harrison	187 75	189 81	718	15	17	5
Henry	172 22	304 26	795	60	82	64
Howard	160 38	74 60	482	82	92	7
Humboldt	168 50	268 26	800	59	78	14
Ia				86	86	
Iowa	445 18	341 27	1065	85	79	54

SPECIAL LIBRARY REPORT—CONTINUED.

Johnson	10823	814 07	75 00	913	58	79	41
Jones	9806	296 83	45 96	655	100	70	47
Keokuk	7691	520 91	118 25	811	81	24	100
Kossuth	6087	350 00	144 50	690	52	141	.....
Lee	6253	246 83	10 17	418	80	.....	28
Linn	14678	746 00	.....	.....	104	106	88
Lonia	5468	297 10	118 75	543	50	62	17
Lucas	3402	269 96	58 11	711	45	33	58
Lyon	6008	123 00	69 00	401	51	74	10
Madison	3455	117 88	24 42	439	75	117	16
Mahaska	6130	354 53	.....	778	80	60	50
Marion	5739	280 80	176 90	480	15	18	91
Marshall	7769	1309 85	.....	1570	56	69	.....
Mills	10292	267 13	9 98	478	70	19	57
Mitchell	10688	.....	.....	683	84	47	37
Monona	3686	223 02	55 00	508	48	94	20
Monroe	2721	251 83	65 00	100	20	42	23
Montgomery	4861	193 40	27 00	888	.....	.....	.....
Muscatine	4824	95 79	.....	206	.....	.....	.....
O'Brien	17316	127 86	481 00	1098	126	131	.....
Oceola	9935	85 00	275 00	680	86	63	.....
Page	6840	276 37	80 00	711	78	68	88
Palo Alto	1810	244 70	200 00	709	124	124	.....
Plymouth	9183	870 84	64 87	757	78	147	1
Pocahontas	11666	85 92	490 74	715	83	116	6
Polk	13900	484 23	57 60	959	65	79	36
Pottawattamie	9629	586 08	50 00	1179	235	226	15
Poweshiek	10390	888 85	234 06	1028	46	90	5
Ringgold	8082	223 00	101 06	.....	61	78	29
Sac	8179	102 84	510 70	2050	90	125	.....
Scott	11987	617 90	.....	981	64	75	38
Shelby	10678	297 10	500 00	1409	135	188	.....
Sioux	9422	477 80	83 35	1127	85	162	2
Story	7118	300 00	75 00	.....	.....	114	65
Tama	7321	450 69	24 00	825	75	95	70
Taylor	8220	.....	.....	.....	45	.....	.....
Union	5082	269 64	.....	506	29	106	16
Van Buren	8304	103 66	.....	236	26	63	34
Wapello	8252	348 46	55 44	1048	56	54	39
Warren	6069	.....	.....	.....	62	50	65
Washington	11778	246 90	575 00	4161	78	50	54
Wayne	4320	210 63	60 00	456	25	.....	33
Webster	15785	293 71	239 94	966	126	134	54
Winnebago	4218	224 88	.....	398	.....	76	5
Winnechiek	7173	361 82	24 06	1209	86	96	39
Woodbury	8946	169 08	72 00	450	55	75	16
Worth	8548	183 15	17 00	268	48	87	.....
Wright	11159	267 44	147 00	1062	122	120	8
Total	714492	25548 81	10489 26	73476	6621	8116	2596

HIGH SCHOOL STATISTICS.

CITIES AND TOWNS OF OVER 1,000 IN POPULATION BY CENSUS OF 1900.

NAME OF SCHOOL.	1903-1904.							NAME OF SCHOOL.	1903-1904.								
	Years in course.	Years in Latin.	Enrollment entire year.			Grad- uates.			Years in course.	Years in Latin.	Enrollment entire year.			Grad- uates.			
			Boys.	Girls.	Total.	Boys.	Girls.				Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Ackley	4 4		26	38	62	8	4	7	Fairfield	4 4		62	108	169	9	8	17
Adel	4 4		36	52	88	2	6	7	Farmington	4 4		16	35	71	7	7	14
Afton	4 4		18	89	57				Fayette	4 3		24	32	54	2	4	6
Akron.....	4 3		20	26	46		8	6	Fonda.....	4 4		5	10	15	4	10	14
Albia.....	4 4		61	98	159	6	14	20	Forest City.....	4 4		29	32	61	5	7	12
Algona.....	4 4		55	62	117	8	8	16	Fort Dodge.....	4 4		98	152	250	9	24	33
Alton.....	4 3½		6	11	17		2	2	Fort Madison... ..	4 4		60	98	158	4	16	20
Amer.	4 4		69	75	144	2	8	10	Fraser	2 1		18	31	49			
Anamosa	4 4				142	8	13	18	Garner.....	4 3		38	44	82	8	10	13
Atlantic.....	4 4		74	102	176	8	13	21	Glenwood	4 4		37	66	103	1	9	10
Auburn.. ...	4 4		30	49	79	4	4	8	Grand Junction	4 2		19	28	45	1	4	5
Avoca	4 4		38	40	70	2	6	7	Greene.....	4 3		20	25	45	1	1	2
Bedford.....	4 4		49	57	106	4	7	11	Greenfield	4 4		31	40	71	2	5	7
Belle Plaine...	4 4		50	73	123	4	7	11	Grinnell	4 4		106	156	262	14	22	36
Bellevue	8 3		2	24	32	8	8	18	Grundy Center.	5 4		54	61	120	4	7	11
Belmond	4 4					8	4	7	Guthrie Center.	4 4		23	37	60	4	6	10
Bloomfield	4 2		84	88	72	8	5	8	Guttenburg ...	4 4		14	20	34	3	4	7
Boone.....	4 4		111	178	284	10	19	29	Hamburg.....	4 4		29	44	73		5	5
Britt	4 4		21	31	52	4	4	8	Hampton	4 4		52	59	111	7	6	13
Brooklyn	4 4		35	47	82	6	8	14	Harlan.....	4 4		8	86	167	11	17	28
Burlington....	4 4		134	284	418	12	28	40	Hartley.....	4 4		28	42	70	1	1	2
Calmar	3 1		16	25	41	2	7	9	Hawarden.....	4 4		50	41	96			
Carroll.....	4 3		59	68	127	8	7	12	Hedrick.....	4 3		10	35	51	3	6	9
Cedar Falls.....	4 4		59	94	153	12	25	37	Hiteman.....	4 3		25	40	65			
Cedar Rapids...	4 4		270	406	676	14	38	50	Humboldt.....	4 4		39	64	97	3	15	19
Centerville ...	4 4		81	145	229	9	27	36	Ida Grove.....	4 4		84	73	157	10	14	24
Chariton	4 4		50	98	148	8	16	24	Independence ..	4 4		59	109	168	11	17	28
Charles City....	4 4		75	141	214	1	21	24	Indianola.....	4 4		8	112	194	18	11	24
Cherokee.....	4 4		71	96	167	11	9	20	Iowa City	4 4		140	206	348	22	34	56
Cincinnati	4 3		40	39	79	1	4	5	Iowa Falls.....	4 4		60	69	129	7	14	21
Clarinda	4 4				98			17	Jefferson	4 4		6	94	182	7	6	13
Clarion	4 4		41	57	101	2	7	9	Keokuk	4 4		189	180	319	16	28	44
Clear Lake.....	3 2		22	34	56	6	6	12	Keosauqua	4 2		38	33	69	4	6	10
Clinton	4 4		98	176	274	14	25	39	Knoxville.....	4 4		45	75	120	9	10	19
Colfax.....	4 3		8	81	81	3	9	12	Lake City.....	4 4					2	7	9
Columbus Jet..	4 3		38	45	81	2	3	5	Lake Mills	4 4		19	31	50	3	1	4
Coon Rapids....	4 3		27	36	63	3	3	6	Lamoni.....	4 4		48	20	66	1	3	4
Corning	4 4		49	81	130	6	15	19	Lansing.....	4 3		26	35	61	7	8	15
Corydon	4 4		39	72	111	8	5	16	La Porte City ..	8 2		25	33	58	5	5	16
Council Bluffs.	4 4		219	369	588	28	39	62	LeMars	4 4		57	74	131	6	8	10
Cresco	4 4		29	40	75	7	15	15	Lenox	4 4		21	49	70		6	6
Creston.....	4 4		113	187	301	7	27	34	Leon.....	4 3½		6	14	20	6	12	18
Davenport	4 4		215	336	549	21	59	80	Logan	3 5		20	44	64	3	7	10
Decorah.....	4 3		50	51	101			22	Lucas	8 3		9	26	35	3	3	11
Denison	4 4		4	85	125	2	13	15	Malvern	4 4		19	32	51	3	3	6
Des Moines, E..	4 4		26	38	53	12	31	43	Manchester....	4 4		69	71	140	5	4	14
Des Moines, W.	4 4		325	436	769	23	37	59	Manning.....	4 4		219	240	459	4	5	9
De Witt.....	8 3		1	22	40	2	6	8	Manson.....	8 3		24	26	50	5	16	21
Dubuque.....	4 4		201	276	477	10	25	35	Mapleton.....	4 4		13	29	42	1	6	7
Dunlap.....	4 4		25	37	62	2	1	3	Maquoketa.....	4 4		47	81	128	11	17	28
Dyersville	2 1		12	11	23			1	Marengo.....	4 4		43	65	108	6	12	18
Eagle Grove....	4 4		60	75	135	11	11	22	Marion.....	4 4		80	116	202	16	28	44
Eddyville.....	4 8		25	40	65	2	4	6	Marshalltown..	5 4				328			29
Eldon	4 4		25	34	55	4	8	7	Mason City.....	4 4		84	128	212	11	33	44
Eldora	4 4		41	64	105	5	7	12	Missouri Valley	4 4		67	98	165	5	9	14
Emmetsburg ..	4 4		32	54	86	4	8	12	Montezuma.....	4 4		41	49	90	5	4	9
Etherville	4 4		48	68	111	1	2	3	Monticello	4 4		50	78	123	9	19	28

ABSTRACT [A]—REPORT OF COUNTY SUPERINTENDENT, 1905.

SCHOOL STATISTICS.

Counties.	Districts.			Schools.			Teachers.			Pupils.						
	School townships.	Independent districts.	No. sub-districts.	No. of rooms in rural schools.	No. of school rooms in cities and towns.	Average duration in months.	Number employed.		Average monthly compensation.	Between the ages of 5 and 21 years.		Ages of 7 to 14 years inclusive.		Persons 7 to 14 years not attending school.		
							Males.	Females.		Males.	Females.	Males.	Females.		Males.	Females.
Adair.....	15	15	137	133	24	8.3	41	283	\$ 40.72	\$ 33.42	2,648	2,478	1,887	1,853	28	84
Adams.....	9	33	77	104	25	8.2	32	201	47.57	33.82	2,008	1,997	1,041	1,099	7	2
Allamakee.....	9	71	52	129	29	7.3	34	209	49.19	26.74	2,167	2,08	1,599	1,543	11	7
Appanoose.....	13	35	94	122	81	7.1	45	225	43.24	32.88	4,092	4,555	2,506	2,410	116	123
Audubon.....	13	8	106	101	25	8.2	27	201	42.99	36.68	2,319	2,346	1,370	1,303	16	9
Benton.....	10	99	89	167	69	8.3	45	327	49.64	34.57	2,886	3,705	1,908	1,908	86	23
Black Hawk.....	10	65	75	136	118	8.	34	350	52.42	38.65	5,505	5,832	2,720	2,668	23	7
Boone.....	1	68	92	140	61	7.9	51	313	42.54	25.29	4,335	4,274	2,334	2,255	38	30
Bremer.....	6	60	43	100	43	7.6	19	213	43.08	29.76	2,564	2,532	1,432	1,393	21	30
Buchanan.....	9	65	77	133	61	8.2	25	310	44.88	34.00	3,036	2,935	1,610	1,596	18	14
Buena Vista.....	15	14	117	135	46	8.2	36	255	41.16	33.91	2,779	2,601	1,483	1,371	61	57
Butler.....	11	48	97	137	44	8.2	37	268	45.59	36.43	2,948	2,837	1,612	1,578	77	39
Calhoun.....	16	9	133	133	55	8.3	27	297	52.81	34.14	2,973	2,734	1,535	1,530	28	17
Carroll.....	13	29	115	129	53	8.	41	243	45.80	34.37	3,313	3,691	2,103	2,114	98	67
Cass.....	15	17	130	140	53	8.5	33	313	49.41	26.64	2,237	2,235	1,731	1,705	11	13
Cedar.....	12	44	100	133	44	8.2	40	268	50.07	25.92	3,007	2,838	1,633	1,601	10	2
Cerro Gordo.....	13	30	102	137	74	8.1	33	299	41.12	36.62	2,336	2,238	1,398	1,731	34	17
Cherokee.....	15	15	126	131	43	8.2	30	272	43.11	36.17	2,644	2,515	1,433	1,374	13	14
Clackamasaw.....	5	62	53	57	33	8.1	17	237	52.07	29.71	2,706	2,716	1,459	1,499	53	43
Clarke.....	9	28	78	102	28	7.4	43	183	36.41	31.98	1,336	1,307	993	963	26	23
Clay.....	16	6	127	120	35	8.3	23	297	45.53	26.24	2,166	2,056	1,253	1,216	10	5
Clayton.....	18	33	142	163	63	8.3	53	264	56.60	32.00	4,438	4,416	2,364	2,403	59	24
Clinton.....	17	37	132	157	140	8.3	33	335	71.33	40.08	7,236	7,355	3,453	2,563	40	23
Crawford.....	20	8	167	176	51	8.7	29	339	51.73	34.35	2,900	2,746	2,176	2,163	56	64

ABSTRACT [A]—REPORT OF COUNTY SUPERINTENDENT FOR 1906--CONTINUED.

SCHOOL STATISTICS.

REPORT OF COUNTY SUPERINTENDENTS.

Counties.	District.			Schools.			Teachers.			Pupils.				Persons 7 to 14 not attending school.		
	School townships.	Independent districts.	No. sub-districts.	Rooms in rural schools.	No. of school rooms in cities and towns.	Average duration in months.	Number employed.		Average monthly compensation.		Between the ages of 6 and 21 years.		Ages of 7 to 14 years inclusive.			
							Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Dallas	13	34	114	140	82	8.4	42	924	55.92	33.84	3,649	3,615	2,019	2,071	41	25
Davis	6	69	34	96	26	6.6	49	137	35.84	32.99	2,391	2,308	1,236	1,217	24	15
Decatur ..	8	54	66	110	49	7.4	40	265	40.08	34.40	2,826	2,810	1,631	1,595	16	27
Delaware ..	14	25	114	129	43	8.4	16	242	48.55	31.94	3,256	2,935	1,824	1,623	71	57
Des Moines ..	5	61	25	83	115	8.0	32	232	63.36	44.71	5,598	5,703	2,701	2,822	24	17
Dickinson ..	11	8	64	78	28	8.1	16	144	52.66	55.84	1,438	1,396	747	800	25	28
Dubuque	10	52	69	127	132	8.7	32	278	79.92	37.92	10,129	10,443	4,496	4,452	22	13
Emmet	10	2	71	78	35	8.1	18	131	46.54	38.26	1,673	1,561	1,127	965	27	21
Fayette	13	84	104	174	76	7.9	50	863	39.88	31.62	4,771	4,609	2,447	2,405	118	90
Floyd	11	16	103	113	55	8.1	23	241	59.02	32.35	2,559	2,619	1,225	1,317	14	16
Franklin	12	97	101	136	28	7.8	42	235	39.32	33.55	2,481	2,340	1,253	1,237	41	40
Fremont	11	19	104	118	53	8.8	43	269	47.29	36.50	2,815	2,726	1,532	1,496	15	8
Greene	14	16	129	137	39	8.0	44	288	42.13	34.50	2,704	2,634	1,491	1,527	8	3
Grundy	9	51	75	119	32	8.1	38	186	41.04	39.55	2,336	2,228	1,281	1,234	23	18
Guthrie	15	15	134	140	54	8.3	48	292	43.92	34.25	3,012	2,929	1,680	1,807	34	19
Hamilton	14	33	107	131	51	8.8	68	264	44.29	37.41	3,396	3,573	1,772	1,917	13	13
Mancock	16	8	114	125	59	8.0	43	210	41.76	36.53	2,452	2,331	1,324	1,273	19	19
Hardin	8	65	76	128	79	8.0	41	292	50.13	34.61	3,743	3,608	2,109	2,013	46	27
Harrison	16	84	117	148	70	8.6	41	321	52.16	37.16	3,977	3,998	2,152	2,227	114	113
Henry	4	73	32	97	44	7.8	30	227	46.88	32.44	2,756	2,435	1,424	1,343	47	29
Howard	11	11	91	98	29	8.2	18	212	49.55	32.85	2,345	2,244	1,286	1,164	13	10
Humboldt	10	6	85	100	42	8.3	19	193	54.61	33.60	2,134	2,068	1,138	1,193	23	3

Ida	11	5	99	99	8	8.	25	185	53.65	87.44	2,078	1,879	1,096	1,081	6	4
Iowa.....	10	66	187	187	42	8.0	40	259	44.66	83.58	8,038	2,930	1,698	1,68.	17	14
Jackson ..	14	45	106	189	65	8.3	26	247	57.09	81.84	3,769	8,878	2,097	2,178	40	84
Jasper.....	17	80	167	175	75	7.9	44	391	42.11	86.84	4,263	4,042	2,234	2,236	29	14
Jefferson.	4	28	69	93	33	7.7	27	207	48.54	31.41	2,555	2,487	1,322	1,299	15	11
Johnson	16	48	114	156	76	8.1	36	328	53.17	85.41	3,804	3,698	1,946	1,874	17	16
Jones.....	9	63	70	126	51	7.9	19	231	55.63	86.06	8,339	3,119	1,744	1,626	15	18
Keokuk.....	3	115	24	124	80	7.6	54	244	43.48	84.14	2,578	8,431	1,89	1,831	23	32
Kossuth.	28	10	212	213	59	7.7	35	399	42.30	36.61	4,012	3,782	2,815	2,239	75	34
Lee.....	7	65	46	101	104	7.0	27	257	59.02	39.51	5,623	5,677	2,281	2,917	41	54
Linn.....	11	74	105	167	255	8.0	53	501	50.70	40.34	8,370	8,447	4,484	4,447	62	56
Louisa	9	25	69	78	33	8.3	29	166	47.21	36.04	2,135	1,983	1,177	1,080	28	25
Lucas.....	6	60	33	90	34	7.7	26	170	41.48	85.8	3,563	2,556	1,344	1,349	4	2
Lyons.....	12	18	84	127	41	8.5	35	203	46.02	37.34	2,581	2,485	1,562	1,536	35	33
Madison.....	13	26	114	184	41	7.8	36	301	41.13	82.84	2,720	2,627	1,575	1,511	.....	1
Mahaska.....	9	74	67	150	78	7.9	69	295	46.50	87.32	6,063	4,867	2,687	2,638	27	32
Marion.....	4	113	22	112	68	7.6	45	225	42.85	33.79	4,053	3,893	2,147	2,115	91	72
Marshall.....	12	58	86	125	113	8.3	41	310	51.04	42.07	4,246	4,063	2,150	2,096	19	23
Mills.....	6	63	19	81	61	8.7	26	155	54.37	83.94	2,303	2,379	1,398	1,331	18	16
Mitchell.....	8	47	51	89	53	8.1	17	173	64.39	83.54	2,316	2,437	1,244	1,223	6	15
Monona.....	16	19	119	140	52	8.4	26	289	50.14	33.99	3,874	3,773	1,805	1,812	55	38
Monroe.....	7	40	60	95	55	7.8	25	191	48.68	88.41	4,024	3,741	1,419	1,374	45	28
Montgomery.	10	23	85	103	55	7.7	32	233	50.31	86.21	2,681	2,549	1,417	1,356	24	17
Muscatine	11	27	63	87	99	8.5	20	243	67.24	42.43	4,520	4,346	2,872	2,850	5	5
O'Brien.	16	6	123	133	55	8.5	39	250	50.21	87.55	3,080	2,982	1,692	1,738	14	7
Osceola.	11	8	92	90	25	8.	20	152	46.23	84.27	1,747	1,546	1,061	934	35	25
Page	11	47	83	119	79	8.2	25	263	51.96	38.23	3,642	3,495	2,041	2,069	12	13
Palo Alto.....	16	7	134	112	40	8.2	25	25	44.81	34.87	2,412	2,847	1,893	1,377	16	9
Plymouth	23	11	159	171	54	8.5	26	300	46.3	34.94	4,073	3,939	2,810	2,812	40	30
Pocahontas.....	15	13	125	132	46	7.9	34	231	44.25	34.40	2,456	2,523	1,507	1,504	5	6
Polk.....	13	57	88	122	370	8.0	60	653	70.35	54.67	15,077	15,554	6,596	6,342	222	145
Pottawattamie	25	27	214	223	193	8.7	46	550	61.10	42.09	8,816	8,499	4,445	4,503	87	75
Poweshiek.....	14	24	115	130	60	8.0	33	274	53.26	85.5.	3,071	3,116	1,658	1,698	12	7
Ringgold.....	13	40	95	123	40	7.7	36	287	41.32	81.8	2,487	2,335	1,596	1,289	36	36
Sac	16	9	152	130	51	8.5	26	254	51.38	35.04	2,889	2,900	1,557	1,594	14	14
Scott.....	13	28	78	103	194	9.1	56	340	30.87	49.58	8,902	8,618	4,405	4,032	23	26
Shelby	16	10	133	186	42	8.7	48	264	12.93	36.73	2,962	2,882	1,646	1,581	16	13
Sioux.....	21	18	161	170	66	8.8	44	279	47.37	37.25	4,601	4,411	2,592	2,524	55	33
Story.....	14	31	118	131	37	7.8	53	272	50.16	33.71	3,865	3,830	2,167	2,137	11	10

ABSTRACT [A] REPORT OF COUNTY SUPERINTENDENTS, 1905—CONTINUED.

SCHOOL STATISTICS.

ABSTRACT [A]—REPORT OF COUNTY SUPERINTENDENTS, 1905.

SCHOOL STATISTICS.

Counties.	Pupils.						School Houses.			General.		
	Enrolled in public schools.	Previously enrolled in other districts.	Total average attendance.	Average tuition per month per pupil.	Non-resident attendance.		Number of schoolhouses.	Value of schoolhouses.	Value of apparatus.	Number of volumes in the libraries.	Number of trees in the schoolhouses.	Rooms in which the effects of stimulents and narcotics are taught.
					Below 4th grade	9th grade and above.						
Adair	4,221	102	2,677	2.25	8	50	139	117,026	4,187	4,732	2,716	53
Adams	3,518	79	2,27	2.25	22	43	112	99,450	8,744	2,406	2,204	138
Allamakee	4,248	51	2,912	1.92	89	26	184	132,196	7,703	5,254	1,646	157
Appanoose	7,662	72	5,144	1.66	124	132	186	200,875	5,824	4,166	1,668	200
Audubon	3,819	22	2,463	2.10	88	36	111	118,946	7,936	3,408	1,992	139
Benton	5,815	281	4,184	2.18	82	68	187	202,676	10,086	13,842	3,910	226
Black Hawk	3,170	93	5,564	2.41	66	50	153	465,605	11,057	11,164	2,661	249
Boone	6,81	122	4,664	2.17	54	58	157	122,430	5,726	12,077	2,409	218
Bremer	3,39	117	2,355	2.17	66	24	113	124,200	7,484	8,408	2,193	143
Buchanan	5,003	40	3,278	2.83	43	77	150	132,989	10,046	6,714	1,703	194
Buena Vista	4,299	118	3,042	2.25	81	75	140	170,100	8,987	15,699	2,491	174
Butler	4,384	108	3,205	2.29	116	110	147	166,533	9,766	7,986	2,637	161
Calhoun	6,254	45	3,859	2.34	78	82	149	165,170	9,903	13,853	2,111	177
Carroll	4,784	71	3,137	2.51	92	66	146	164,415	11,393	5,074	2,462	133
Cass	5,514	75	3,871	2.19	64	86	153	177,936	9,011	8,281	3,501	174
Cedar	4,584	79	3,219	2.46	94	17	143	201,330	9,482	7,692	3,637	177
Cerro Gordo	5,091	80	3,512	3.02	64	62	143	341,676	12,013	7,974	2,515	206
Cherokee	4,302	180	4,936	2.55	65	47	144	189,315	7,139	19,460	2,868	146
Chickasaw	3,930	123	2,470	2.13	47	72	121	110,260	5,400	5,057	2,324	139
Clarke	3,862	4	2,211	2.23	25	25	108	90,506	2,953	2,515	2,726	130
Clay	3,654	3	2,447	2.50	24	50	132	123,575	9,694	3,968	1,238	155
Clayton	6,233	71	4,182	2.05	75	79	180	203,536	9,600	9,165	2,368	218
Clinton	9,171	62	6,636	2.19	66	54	186	493,430	15,661	8,324	3,593	274
Crawford	5,616	75	3,686	2.32	69	59	180	230,436	14,573	7,361	3,667	218

ABSTRACT [A]—REPORT OF COUNTY SUPERINTENDENTS FOR 1905—CONTINUED.

SCHOOL STATISTICS.

Counties.	Pup ls.					School Houses.			General.				
	Enrolled in public schools.	Previously enrolled in other districts	Total average attendance.	Average tuition per month per pupil.	Non-resi- dent at- tendance.	Tuition Received.		Value of school houses.	Value of apparatus.	Number of volumes in the libraries.	Number of trees in thirty condition on the schoolhouse sites.	Rooms in which the effects of stimu- lants and narcotics are taught.	
						Below 9th grade and above	9th grade and above.						
													Below 9th grade	9th grade and above.
Dallas ..	6,817	106	4,587	2.09	118	907.85	2,279.16	158	214,493	8,047	8,153	3,755	222
Davis ..	3,867	71	2,501	1.72	61	51.80	96.81	104	94,050	8,539	2,457	1,830	193
Decatur ..	5,151	161	3,285	1.84	42	224.11	1,189.32	123	181,820	5,786	3,607	2,861	169
Delaware ..	4,444	69	2,917	2.17	156	394.59	724.42	145	140,545	6,969	6,635	2,231	171
Des Moines ..	7,886	248	5,893	2.26	84	232.06	886.00	99	819,600	12,186	3,273	1,797	105
Dickinson ..	2,495	78	1,509	2.71	20	234.71	805.85	73	32,015	3,859	4,518	1,871	101
Dubuque ..	7,950	130	3,892	2.31	18	79.81	165.63	152	554,441	12,874	8,877	2,153	249
Emmet ..	2,877	60	1,788	2.61	82	829.25	166.50	85	95,640	3,404	9,387	1,761	108
Fayette ..	7,155	103	4,739	1.98	29	76.25	684.34	121	211,645	8,455	11,897	2,291	250
Floyd ..	4,168	59	2,794	2.63	56	443.86	2,081.72	124	221,890	10,309	8,554	1,639	166
Franklin ..	3,749	87	2,504	2.58	44	383.81	591.50	144	124,935	6,309	5,843	2,235	164
Fremont ..	4,533	38	3,277	2.47	115	1,273.27	1,222.81	129	164,580	7,883	7,933	2,605	170
Greene ..	4,706	102	3,088	2.42	46	245.62	1,899.74	145	184,685	5,532	5,056	2,286	173
Grundy ..	3,607	76	2,480	2.40	65	367.10	672.73	128	118,632	3,208	4,532	2,311	140
Guthrie ..	5,190	118	3,549	2.14	43	122.50	763.90	154	173,525	6,493	5,152	1,934	193
Hamilton ..	5,054	58	3,517	2.16	56	304.37	430.40	146	182,450	9,231	5,026	1,237	169
Hancock ..	4,064	82	2,538	2.67	91	365.68	329.84	134	141,165	4,832	3,429	2,426	163
Hardin ..	5,701	72	3,894	2.43	176	1,072.50	1,157.84	148	192,600	9,412	7,701	3,390	199
Harrison ..	6,817	96	4,481	2.10	72	449.42	8,045.26	162	222,635	8,453	6,55	2,936	217
Henry ..	4,526	127	3,057	1.93	53	233.78	492.8	109	140,200	6,561	6,507	3,079	142
Howard ..	3,500	24	2,818	2.33	49	347.91	424.47	116	118,930	4,829	4,879	1,915	125
Humboldt ..	3,513	97	2,851	2.23	97	894.10	978.24	112	116,275	5,160	8,730	2,323	188

Ida.....	3, 193	23	2, 184	2.68	41	87	151.00	1, 620.00	107	139, 750	7, 989	7, 357	3, 014	138
Iowa.....	4, 955	68	3, 833	2.13	103	125	589.34	1, 519.35	143	152, 935	6, 809	10, 658	3, 453	180
Jackson.....	5, 570	84	4, 018	1.79	14	79	545.40	582.60	155	190, 195	8, 868	4, 081	2, 351	204
Jasper.....	6, 874	88	4, 567	2.23	123	59	1, 454.91	780.84	192	225, 805	8, 882	6, 384	4, 135	250
Jefferson.....	3, 911	133	2, 909	2.31	80	37	233.16	538.43	101	113, 675	8, 610	3, 727	1, 494	229
Johnson.....	5, 883	56	3, 841	2.37	114	121	1, 846.83	2, 661.00	172	254, 025	10, 214	11, 647	4, 559	179
Jones.....	5, 114	105	3, 550	2.08	78	96	1, 339.74	1, 167.66	139	175, 400	8, 906	10, 293	2, 445	13
Keokuk.....	5, 843	143	3, 949	2.70	76	127	504.72	1, 215.89	146	183, 790	8, 177	7, 933	4, 140	205
Kossuth.....	6, 263	113	3, 839	1.66	197	59	448.50	379.65	226	221, 615	14, 236	8, 155	3, 279	253
Lee.....	7, 501	103	4, 690	2.40	79	43	567.70	667.15	124	402, 255	6, 680	6, 658	2, 590	201
Linn.....	13, 689	186	6, 536	2.13	123	127	1, 359.13	2, 133.70	203	737, 651	18, 177	15, 621	3, 632	249
Louisa.....	3, 306	76	2, 273	2.13	56	93	393.58	1, 456.75	90	181, 930	4, 555	6, 187	1, 847	111
Lucas.....	4, 203	53	2, 865	1.81	52	41	264.47	559.24	99	171, 230	5, 951	4, 193	2, 445	123
Lyon.....	4, 043	157	2, 565	2.62	103	51	1, 459.23	517.35	139	183, 600	4, 410	6, 792	2, 433	167
Madison.....	4, 659	120	3, 086	2.11	47	104	121.75	1, 459.84	143	141, 530	4, 936	4, 013	2, 612	173
Mahaska.....	7, 834	89	5, 034	2.08	95	51	643.55	519.00	157	267, 815	7, 438	6, 449	3, 052	206
Marion.....	6, 444	82	4, 344	2.14	63	30	167.19	557.00	153	210, 590	7, 117	6, 833	2, 445	199
Marshall.....	6, 526	242	4, 847	2.33	121	73	932.21	1, 161.78	152	640, 960	7, 108	8, 481	2, 907	225
Mills.....	4, 146	69	2, 726	2.11	88	53	531.90	1, 037.31	130	131, 260	6, 906	13, 349	2, 224	133
Mitchell.....	3, 405	78	2, 467	2.14	82	37	514.05	532.55	107	119, 230	5, 954	11, 773	2, 519	139
Monona.....	4, 717	16	3, 153	2.40	112	109	1, 204.42	1, 543.00	152	180, 795	6, 323	8, 703	3, 269	190
Monroe.....	5, 336	84	3, 466	1.72	60	74	15.55	180.93	104	123, 155	3, 578	3, 094	3, 715	137
Montgomery.....	4, 837	57	2, 313	3.33	33	116	49.00	1, 531.83	114	197, 720	6, 442	5, 646	3, 328	157
Muscatine.....	6, 234	55	4, 463	2.13	43	82	335.30	1, 142.30	105	240, 300	5, 068	4, 231	2, 163	136
O'Brien.....	4, 837	102	3, 551	2.33	111	101	1, 123.88	1, 225.56	141	194, 835	16, 790	17, 777	3, 630	183
Oceola.....	2, 630	150	1, 590	2.76	51	25	399.98	238.07	94	111, 400	3, 546	11, 523	1, 535	113
Page.....	6, 023	145	4, 376	1.99	133	81	382.48	955.52	140	322, 721	8, 045	6, 333	4, 990	198
Palo Alto.....	3, 323	80	2, 415	2.79	37	49	874.87	410.88	133	112, 578	10, 704	24, 675	2, 375	163
Plymouth.....	5, 467	96	3, 525	2.46	49	82	513.00	373.06	132	194, 700	10, 605	3, 715	3, 124	243
Pocahontas.....	4, 351	153	2, 867	2.43	92	53	403.21	796.17	144	153, 971	8, 024	13, 139	6, 301	175
Polk.....	21, 559	272	14, 715	2.64	36	79	556.29	1, 237.18	194	1, 655, 685	39, 337	9, 067	4, 363	493
Pottawattamie.....	52, 972	301	9, 342	3.37	167	153	870.10	2, 256.85	256	486, 133	40, 566	13, 133	6, 913	422
Poweshiek.....	5, 057	44	3, 726	2.40	67	109	596.00	1, 333.00	145	236, 155	5, 216	6, 099	3, 555	134
Ringgold.....	4, 154	101	2, 711	2.25	70	58	499.49	517.42	135	107, 340	7, 043	4, 413	1, 717	163
Sac.....	4, 603	18	3, 489	2.02	30	93	661.70	1, 176.59	144	180, 725	7, 282	10, 297	2, 849	181
Scott.....	10, 903	123	3, 039	2.32	107	35	1, 070.07	629.12	127	743, 050	13, 545	12, 949	4, 145	199
Shelby.....	4, 630	86	3, 205	2.23	88	82	528.85	914.73	146	137, 405	6, 752	9, 556	5, 750	184
Sioux.....	6, 135	144	4, 110	2.41	53	77	400.10	871.15	137	223, 567	9, 321	11, 236	3, 378	217
Story.....	6, 436	74	4, 607	2.17	91	122	746.08	1, 431.86	154	207, 539	4, 583	6, 608	3, 675	219

ABSTRACT [A] REPORT OF COUNTY SUPERINTENDENTS, 1905—CONTINUED.

SCHOOL STATISTICS.

Counties.	Pupils.						School Houses.			General.		
	Enrolled in public schools.	Previously enrolled in other districts.	Total average attendance.	Average tuition per month per pupil.	Non-resident attendance.		Number of schoolhouses.	Value of schoolhouses.	Value of apparatus.	Number of volumes in the libraries.	Number of trees in a thrifty condition or the schoolhouse sites	Rooms in which the effects of stimulents and narcotics are taught.
					Below 9th grade	9th grade and above.						
Tama.....	4,702	88	4,189	2.39	100	61	188	254,110	9,904	9,061	4,046	233
Taylor.....	4,987	163	3,269	2.08	106	77	129	154,340	4,804	2,666	2,422	178
Union.....	4,528	88	3,240	2.52	88	86	132	219,400	4,258	5,717	1,880	158
Van Buren.....	4,685	86	2,918	1.78	180	120	115	127,115	2,866	2,859	2,168	157
Wapello.....	8,178	238	6,160	1.98	128	47	118	483,200	8,684	9,067	2,463	216
Warren.....	6,409	272	3,734	1.84	125	63	146	184,870	6,046	6,63	2,810	156
Washington.....	5,031	238	3,470	2.24	116	94	189	178,305	6,442	12,180	2,218	171
Wayne.....	5,047	74	2,446	1.81	98	145	120	181,987	7,330	5,702	1,664	170
Webster.....	7,031	152	4,700	2.97	65	58	140	351,937	8,538	14,650	2,246	245
Winnebago.....	8,464	59	2,155	2.32	23	29	94	106,656	4,599	4,696	1,510	117
Winnechek.....	5,080	48	3,013	2.80	56	19	150	169,830	6,648	8,622	2,096	173
Woodbury.....	15,917	126	9,111	2.28	116	57	216	976,210	21,832	9,917	5,039	405
Worth.....	2,773	10	1,916	2.05	18	21	97	78,565	3,277	4,853	1,275	113
Wright.....	4,973	84	3,550	2.80	25	36	141	157,930	8,469	12,086	2,268	193
Totals.....	550,376	10,037	375,563	2.23	7,544	7,083	13,908	\$ 21,456,618.3	\$ 347,908	794,769	209,959	18,218

ABSTRACT [B]—REPORTS FOR 1905.

SCHOOL FINANCES.

REPORT OF COUNTY SUPERINTENDENTS.

COUNTIES.	TEACHERS' FUND.									
	DEBIT					Total debit or credit.	CREDIT.			
	On hand at last report.	Received from district tax.	Received from annual apportionment.	Received from tuition.	Received from other sources.		Paid teachers since last report.	Paid for library books.	Paid for other purposes.	On hand.
Adair.....	\$ 19,597.73	48,933.74	5,863.75	1,233.71	105.47	\$ 70,742.43	\$ 50,217.41	\$ 77.02	\$ 273.32	\$ 20,173.64
Adams.....	20,109.20	40,852.23	5,806.74	678.02	371.78	67,317.97	44,077.49	83.69	277.83	24,523.46
Allamakee.....	17,994.08	34,419.83	6,801.25	1,023.02	165.53	59,908.71	40,253.56	136.48	317.54	19,141.13
Appanoose.....	32,001.93	53,624.89	9,814.08	1,518.53	290.45	99,349.85	58,673.19	143.93	3,612.95	36,790.78
Audubon.....	13,694.29	37,430.00	5,543.73	151.33	30.78	61,395.13	42,553.50	173.27	40.50	19,003.50
Benton.....	54,503.73	64,493.81	13,835.65	1,363.41	244.57	134,443.67	76,533.03	313.56	1,349.31	53,197.70
Black Hawk.....	57,231.56	19,338.27	14,735.98	393.45	93.30	161,873.15	167,244.13	96.30	171.29	54,361.93
Boone.....	33,693.49	63,523.71	9,757.55	322.20	339.97	177,643.92	74,637.81	69.63	6.63	42,939.30
Bremer.....	21,304.95	30,267.81	5,433.25	945.45	247.33	53,897.92	33,761.93	16.01	513.60	19,107.33
Buchanan.....	34,966.83	55,497.37	8,031.79	1,036.22	440.37	100,032.08	62,623.32	207.11	251.29	36,995.36
Buena Vista.....	30,344.53	49,471.03	6,662.92	1,259.24	2,337.00	90,574.71	56,592.90	233.33	1,613.93	31,334.05
Butler.....	39,023.15	52,469.09	3,373.16	1,716.05	1,255.51	102,841.96	60,172.71	214.33	1,592.62	40,363.30
Calhoun.....	19,870.07	53,219.83	7,919.88	1,645.95	1,136.90	83,732.63	65,326.63	173.13	521.35	17,256.46
Carroll.....	27,933.51	57,239.99	6,960.00	1,476.47	323.78	93,833.75	63,533.70	153.51	1,799.16	29,267.13
Cass.....	33,461.63	64,771.07	9,144.30	1,391.35	407.53	103,676.33	73,101.27	15.13	96.63	30,333.40
Cedar.....	40,731.94	51,935.07	11,997.70	1,963.35	166.57	106,797.03	63,799.75	143.33	391.62	43,461.33
Cerro Gordo.....	42,780.59	53,269.42	10,277.45	1,160.34	1,524.09	114,012.35	69,962.33	197.60	767.59	43,034.01
Cherokee.....	40,633.77	53,171.04	6,342.50	1,331.66	1,120.24	105,199.21	61,744.43	264.60	626.16	42,539.97
Chickasaw.....	22,523.90	36,939.94	6,213.00	934.31	134.55	60,790.70	42,717.12	23.00	249.46	23,301.12
Clarke.....	16,978.12	30,341.98	5,113.11	457.11	13.90	52,834.32	36,542.70	123.40	163.97	16,050.05
Clay.....	22,531.40	49,712.02	6,466.54	922.15	30.00	79,712.11	50,752.94	136.33	1,103.40	27,713.90
Clayton.....	43,605.24	57,853.87	12,731.13	1,330.90	717.36	116,234.05	68,646.72	341.24	312.54	47,133.55
Clinton.....	33,719.24	106,377.93	15,515.61	1,104.03	269.21	161,336.02	123,917.19	242.99	407.16	32,313.53
Crawford.....	45,327.31	66,048.00	10,433.90	1,267.90	35.19	134,312.19	74,231.34	267.67	1,734.34	47,917.34
Dallas.....	23,722.43	73,353.59	3,633.98	2,337.01	930.43	113,971.42	79,514.09	133.10	993.59	33,372.64
Davis.....	11,690.99	20,525.77	5,633.91	53.67	445.41	38,304.74	23,311.33	73.32	177.30	9,793.79
Decatur.....	26,193.46	31,071.64	4,201.13	974.50	1,269.39	63,315.07	44,036.92	56.53	323.01	23,354.19
Delaware.....	35,093.61	45,442.76	7,737.39	1,113.37	125.00	89,506.63	51,363.17	173.51	153.19	37,363.76
Des Moines.....	23,375.21	33,635.49	10,450.54	630.35	349.45	123,291.54	93,606.23	46.92	39.94	29,703.40
Dickinson.....	15,237.23	29,912.30	4,026.21	352.63	.....	49,523.61	33,194.70	63.74	119.94	16,150.24
Dubuque.....	19,300.74	95,723.73	20,363.12	316.39	733.59	136,503.07	116,260.79	39.47	136.13	20,075.69

ABSTRACT [B]—REPORTS FOR 1905—CONTINUED.

SCHOOL FINANCES.

COUNTIES.	TEACHERS' FUND.									
	DEBIT.					Total debit or credit.	CREDIT.			On hand.
	On hand at last report	Received from district tax.	Received from annual apportionment.	Received from tuition.	Received from other sources.		Paid teachers since last report.	Paid for other purposes.	Paid for library books.	
Emmet.....	\$ 16,895.80	\$ 86,478.59	\$ 4,710.82	\$ 495.75	.....	\$ 58,076.26	\$ 87,708.49	\$ 149.04	\$ 843.80	\$ 19,830.43
Fayette.....	46,296.95	63,817.28	18,612.45	881.58	569.70	124,076.96	73,271.75	109.02	222.09	51,073.50
Floyd.....	18,839.27	49,618.28	7,242.54	1,632.49	792.50	78,225.40	56,065.68	51.51	836.28	21,253.03
Franklin.....	25,217.56	42,844.31	6,914.01	943.76	979.51	76,899.19	50,809.16	216.89	942.54	24,940.58
Fremont.....	31,035.10	59,973.09	7,465.53	2,247.78	179.31	103,895.84	60,547.22	978.62	2,131.17	40,935.93
Greene.....	35,001.63	49,559.48	13,101.54	956.12	859.95	99,480.70	59,756.30	153.81	319.60	39,250.99
Grundy.....	27,863.75	42,190.04	7,666.10	938.83	189.58	78,808.31	48,181.88	97.43	223.64	30,355.86
Guthrie.....	31,001.56	56,117.72	8,428.65	956.40	1,432.46	99,089.82	63,385.07	25.14	879.14	35,800.47
Hamilton.....	27,061.06	57,511.25	7,864.48	631.63	204.06	98,302.45	62,886.17	376.47	272.89	29,867.42
Hancock.....	24,173.00	51,347.00	6,326.84	693.56	293.77	83,776.17	53,194.59	847.61	57.06	28,646.91
Hardin.....	50,516.66	68,969.07	9,009.25	2,827.54	470.54	181,863.09	75,711.50	281.86	1,067.52	51,812.21
Harrison.....	43,650.26	67,883.37	9,719.40	1,692.02	293.46	123,288.52	81,361.28	119.78	765.94	40,286.56
Henry.....	23,489.36	87,066.46	6,761.63	684.09	2,614.76	70,616.32	47,606.89	184.62	1,801.22	21,083.49
Howard.....	14,155.41	31,300.87	7,849.15	812.88	78.62	57,689.89	38,815.90	109.00	2,844.77	16,879.72
Humboldt.....	27,914.35	36,234.95	5,548.90	871.29	578.40	71,192.17	43,649.33	152.95	649.32	26,560.77
Ide.....	38,651.81	45,841.63	8,438.76	2,072.62	593.26	85,601.10	49,191.69	10.54	665.95	25,782.92
Iowa.....	28,947.13	45,715.51	8,097.75	1,053.51	6,044.38	89,848.34	57,938.78	236.57	4,084.23	27,568.46
Jackson.....	36,431.94	48,199.58	7,591.64	1,854.61	592.27	93,900.09	59,639.67	.....	221.15	34,089.97
Jasper.....	41,167.09	65,107.91	9,170.91	2,225.79	693.53	118,355.33	80,780.19	148.57	838.96	37,067.71
Jefferson.....	19,241.38	33,400.76	6,573.41	770.99	112.23	60,193.74	37,984.04	135.19	70.04	21,959.45
Johnson.....	23,681.84	63,568.68	9,734.30	3,443.54	834.60	98,671.41	78,510.28	59.09	512.82	25,269.72
Jones.....	35,161.03	53,313.71	9,535.70	1,686.20	495.03	100,191.67	58,551.39	114.43	718.80	40,807.15
Keokuk.....	35,894.66	52,746.14	8,815.20	2,278.01	222.69	100,456.69	63,063.34	209.02	912.24	36,283.95
Kossuth.....	45,812.93	72,744.81	10,184.67	1,003.69	1,713.67	132,407.17	80,239.35	306.31	1,735.02	50,136.48
Lee.....	15,092.80	69,618.88	11,261.55	1,286.77	78.34	97,287.79	78,822.07	152.62	2,094.74	16,311.36
Linn.....	92,171.54	145,827.46	20,983.92	8,101.69	595.57	262,670.78	166,909.73	220.48	1,145.64	94,894.90
Louisa.....	22,573.32	84,059.63	4,714.46	1,829.44	191.06	62,169.79	40,142.28	105.62	264.51	21,857.53
Lucas.....	20,433.55	35,237.10	5,410.90	843.90	194.05	63,128.50	40,018.15	179.53	639.56	21,606.26
Lyon.....	30,872.44	52,648.01	6,511.35	1,995.25	.....	92,027.11	57,040.90	156.80	740.35	34,089.05

Madison.....	20,980.60	49,222.89	6,965.31	1,581.59	72,690.71	50,604.91	142.10	83.81	31,859.89	
Mahaska.....	26,140.88	81,100.99	9,171.40	1,875.12	119,409.08	81,304.64	257.73	3,266.71	34,649.96	
Marion.....	86,501.79	63,843.51	8,461.38	3,892.81	98,890.98	57,917.86	206.83	4,496.78	40,190.53	
Marshall.....	33,421.35	90,734.76	3,618.43	2,093.99	180,488.85	96,981.96	150.97	4,098.08	80,812.43	
Mills.....	20,069.45	46,147.28	8,182.10	1,447.61	83,841.30	49,984.03	116.87	1,733.76	31,086.54	
Mitchell.....	20,555.53	85,733.06	6,835.93	885.13	65,417.80	42,654.76	142.86	784.59	31,884.89	
Menona.....	37,286.04	57,101.49	6,048.62	1,306.42	102,619.77	63,613.47	76.80	688.96	32,242.95	
Monroe.....	18,609.57	42,062.84	5,856.08	1,268.69	67,822.04	43,584.48	73.42	381.70	28,883.44	
Montgomery.....	97,572.72	49,491.46	8,872.49	453.80	86,287.16	57,506.59	50.08	146.34	28,474.21	
Muscatine.....	14,852.60	75,897.82	10,100.80	1,584.96	102,809.23	81,087.60	24.70	4,738.97	16,607.86	
O'Brien.....	88,457.47	64,180.47	6,144.62	2,334.44	106,874.91	70,209.24	.....	1,793.96	34,868.73
Oscola.....	25,168.86	26,399.24	8,843.75	688.55	62,042.04	35,079.75	31.91	229.98	26,633.30	
Page.....	44,718.51	64,821.80	10,153.96	1,889.00	120,875.58	69,908.59	264.59	209.23	50,192.93	
Palo Alto.....	21,791.42	48,853.19	5,982.80	291.87	80,745.26	50,270.87	208.45	1,073.83	28,592.61	
Plymouth.....	41,689.57	66,894.57	10,864.00	735.23	119,684.87	73,711.26	210.84	321.18	45,441.64	
Pecahontas.....	24,806.80	48,861.53	9,614.00	1,192.86	64,087.63	54,552.26	19.77	1,211.63	28,202.96	
Polk.....	134,061.93	235,759.87	37,357.15	1,663.43	459,918.86	312,289.55	180.68	1,842.60	146,200.88	
Pottawattamie.....	60,979.74	170,053.12	20,876.04	2,027.50	264,188.88	183,173.89	274.21	780.94	70,964.34	
Poweshiek.....	82,477.94	61,106.20	9,186.58	2,705.84	106,671.83	69,829.76	122.57	183.08	55,580.93	
Ringgold.....	23,967.72	42,504.96	5,891.15	1,024.11	73,986.23	46,880.17	71.71	1,127.71	25,906.68	
Sac.....	27,059.15	53,281.66	10,144.21	1,675.84	94,208.95	59,994.18	10.50	947.60	38,256.67	
Scott.....	87,640.83	144,665.72	21,653.16	1,765.14	257,172.38	171,212.12	169.75	773.41	85,016.95	
Shelby.....	81,023.57	54,940.74	8,140.80	1,543.79	96,864.40	62,413.17	288.84	277.17	32,880.73	
Sioux.....	87,986.06	79,913.95	13,927.29	1,000.45	188,198.12	86,835.79	185.02	545.83	45,576.46	
Story.....	42,117.50	67,297.77	10,196.47	2,244.85	122,883.19	77,864.96	146.08	600.33	43,771.84	
Tama.....	53,312.80	62,299.80	14,571.20	1,538.18	181,399.01	79,255.10	205.14	897.00	51,531.77	
Taylor.....	25,618.16	45,344.61	9,886.64	1,553.72	82,272.29	56,839.85	89.90	189.40	25,753.14	
Union.....	25,020.80	46,218.43	6,237.40	1,525.14	79,047.22	58,237.57	236.26	159.44	20,838.95	
Van Buren.....	25,166.99	81,702.96	5,967.73	1,812.40	65,785.83	38,454.98	115.59	904.16	26,261.15	
Wapello.....	23,147.46	87,494.44	10,026.19	1,064.16	126,458.49	96,707.66	286.08	249.60	29,215.20	
Warren.....	22,797.65	45,960.53	5,014.06	1,111.56	74,236.24	52,161.87	143.12	442.17	23,459.18	
Washington.....	23,902.35	55,868.65	11,578.95	2,570.85	93,599.62	61,457.66	108.18	3,874.88	28,664.86	
Wayne.....	22,904.45	41,442.66	6,176.16	1,651.27	72,565.83	45,535.73	242.50	495.12	26,292.48	
Webster.....	33,111.76	84,702.91	11,913.06	1,117.82	130,251.97	87,469.39	250.26	769.18	41,763.01	
Winnebago.....	21,980.87	81,659.76	6,420.71	447.13	60,801.94	35,993.84	129.04	429.08	24,249.98	
Winneshiek.....	25,653.58	41,232.98	9,099.98	300.89	77,508.51	49,809.66	268.73	1,406.47	26,023.41	
Woodbury.....	72,804.56	183,945.53	21,760.24	1,809.57	282,452.87	183,931.16	76.00	2,857.60	95,557.51	
Worth.....	16,919.28	28,015.83	3,411.49	261.60	43,682.56	23,715.06	315.71	453.11	14,193.83	
Wright.....	58,454.63	63,973.12	5,027.16	1,648.66	110,437.82	66,966.92	86.13	63.46	43,327.81	
Totals.....	\$3,231,405.69	\$5,969,517.74	\$897,490.41	\$128,761.76	\$79,891.18	\$10,307,063.77	\$6,745,416.24	\$14,912.97	\$88,852.29	\$3,457,885.37

ABSTRACT [B]

SCHOOL

Counties.	Schoolhouse Fund.								
	Debits.			Total debit or credit	Credits.				
	On hand at last report.	Received from district tax.	Received from other sources.		Paid for school-houses and sites.	Paid on bonds and interest.	Paid for library books.	Transferred to other funds.	Paid for other purposes.
Adair.....	\$ 594.4	\$ 4475.59	\$ 42.04	\$ 5422.53	\$ 1005.92	\$ 1744.21	\$ 320.84		\$ 900.45
Adams.....	3447.74	3233.91	106.4	5830.13	779.82	1725.44		\$ 510.64	635.79
Allamakee.....	630.8	133.41	2513.04	4579.25	254.65	157.26		182.55	79.60
Appanoose.....	484.1	504.5	1120.9	2170.57	5734.72	4474.51		175.85	7082.78
Audubon.....	1807.8	5405.42	108.92	7321.71	2560.5	1590.00		957.91	48.85
Benton.....	2335.91	800.62	14116.11	24957.6	2307.43	6391.5		24.1	
Black Hawk.....	3229.51	3328.96	2727.2	5779.47	2728.62	11749.51		56.61	
Boone.....	249.51	10394.4	4084.71	17170.81	4156.34	4429.71	149.14	614.01	
Bremer.....	144.67	6082.73		7524.41	1841.51	2021.17		104.2	
Buchanan.....	3892.71	4532.9	1851.07	9377.71	620.11	4237.25	8.76	90.2	
Bureau Vista.....	7553.49	6806.61	14.27	14374.37	944.71	7317.04		1008.11	
Butler.....	1574.86	3091.67	4676.71	15543.2	4390.89	5101.62		25.01	
Calhoun.....	2921.54	8528.92	8423.44	19873.9	13993.6	295.94		150.01	
Carroll.....	8028.35	10155.98	1225.2	19410.5	7436.55	334.74		262.92	
Cass.....	8070.67	4651.06	713.82	14558.9	644.91	1836.68	11.34	642.11	
Cedar.....	287.8	4933.1	25565.71	32799.71	25395.2	2116.15		306.2	
Cerro Gordo.....	827.74	15538.64	1537.67	25397.47	8770.74	7099.11		1218.81	
Cherokee.....	3236.07	419.94	124.61	7539.5	1810.01	1233.41		208.21	
Chickasaw.....	1814.55	2655.51	1533.2	5418.2	24.9.81	1161.61		648.01	
Clarke.....	9.5.42	4732.27	977.67	6655.68	518.01	1024.57		48.17	
Clay.....	2159.41	8.61.01	844.3	10689.71	1279.31	5063.41	18.00	171.61	
Clayton.....	2071.11	5503.71	1492.61	9466.41	1235.52	3174.41		915.81	
Clinton.....	6718.01	18130.11	83.28.44	57967.07	9.94.81	8594.51		311.0	
Crawford.....	1772.01	7556.0	1178.85	10508.8	1281.01	6729.61	100.01		
Dallas.....	5115.71	10120.01	21545.81	36782.1	23674.1	1721.01		463.80	
Davis.....	1144.52	4654.85	43.67	5847.5	807.36	2542.07		2.4.61	
Decatur.....	1332.92	7466.71	1897.78	10262.4	2401.45	1541.21		112.11	
Delaware.....	1109.89	2034.11	11044.35	14345.4	4537.81	898.41		143.27	
Des Moines.....	1829.63	14351.39	1075.3	17756.3	2945.14	3928.81		163.14	
Dickinson.....	3008.01	7911.81	610.11	11154.41	3474.0	3897.81		1209.61	
Dubuque.....	1784.71	5312.1	96.51	7098.5	576.41	4638.31		512.01	
Emmet.....	3179.64	3712.41	1823.51	8709.8	4400.11	2560.5			
Fayette.....	4700.61	10018.08	1648.5	16367.21	2621.80	6313.41	1.00	612.41	
Floyd.....	5004.51	2396.71	13.81	18906.01	1425.61	7093.61		1810.01	
Franklin.....	2235.13	9.19.11	81.44	1132.67	2550.01	2102.4		24.1	
Fremont.....	1475.64	6482.5	14.15	80.8.8	3828.20	1430.01		179.8	
Greene.....	1691.80	3113.71	30235.94	36831.47	6819.31	1302.71		117.41	
Grundy.....	3510.22	5419.81	8973.99	11504.01	639.94	4288.2		841.84	
Guthrie.....	8197.09	3516.8	180.91	8694.27	1561.31	1756.61		1622.91	
Hamilton.....	3084.91	11265.71	11230.51	25781.21	11122.21	8974.01		99.71	
Hancock.....	7347.67	6947.81	1871.71	16167.4	446.61	1899.9		1643.80	
Hardin.....	6141.81	8.11.21	282.31	15234.9	3046.98	6572.52		413.74	
Harrison.....	6941.67	8904.81	9495.58	25433.11	6979.43	19489.47		977.41	
Henry.....	1659.27	2007.30	963.9	4925.41	1120.51	2060.21		589.15	
Howard.....	3765.65	4450.11	2525.01	28340.71	18080.01	5038.61			
Humboldt.....	12081.65	8641.84	412.01	17034.01	12288.44	1620.11		5.2.80	
Ida.....	3555.51	5225.01	4731.01	16511.8		7504.61		9.7.61	
Iowa.....	4135.78	5490.01	477.9	18108.71	2106.41	2134.08		74.29	
Jackson.....	2426.83	4072.01	4108.71	10807.07	3212.41	1630.29	1.00	712.5	
Jasper.....	8580.30	11110.45	2325.79	17018.44	6770.75	4696.81		227.71	

REPORTS FROM 1905—CONTINUED.

FINANCES.

Contingent Fund.											
Debit.			Total debit or credit	Credit.							
On hand at last report.	Received from dist. lot tax.	Received from other sources.		Paid for fuel, rent, repairs, insurance and janitors.	Paid secretaries and treasurers.	Paid for records and apparatus.	Paid for library books and dictionaries.	Paid for free text books.	Paid for text books and gen'l supplies.	Paid for other purposes.	On hand.
\$ 7137.73	\$ 16633.02	\$ 470.04	\$ 21380.79	\$ 12339.71	\$ 1424.59	\$ 202.79	\$ 181.48	.....	\$ 578.18	\$ 1946.52	\$ 7607.54
5162.91	12257.80	806.83	18277.54	8250.42	1131.88	165.25	68.54	\$ 388.20	897.58	1132.94	6682.73
4311.82	12474.77	1530.91	14936.50	9346.95	1186.68	72.10	69.70	110.60	1153.03	907.09	5120.65
11674.45	14326.08	203.84	26705.87	13917.41	1813.05	823.95	188.90	71.04	420.02	1388.97	9177.63
4670.61	147.78	2351.68	22295.29	11659.21	1219.07	470.13	16.79	522.85	263.58	2201.41	5942.25
14727.02	23306.07	2184.89	39947.48	18773.63	1728.01	93.00	71.61	.....	1141.81	2534.51	15403.86
1202.85	87534.95	8656.68	59399.88	24163.10	1616.88	166.89	639.86	9.70	4089.48	9624.67	11780.30
7216.26	23537.25	7171.80	36915.81	14967.14	1794.24	61.90	204.11	1.25	455.30	11043.53	8381.74
5242.92	13739.88	1766.65	20719.85	9514.14	1202.82	113.52	128.73	53.27	1783.89	2181.99	5814.70
7949.81	19371.85	1198.35	28514.94	14305.83	1453.25	271.69	123.85	.....	877.20	2637.77	8781.35
9995.62	21024.58	4154.71	35143.91	12133.03	1964.93	298.93	115.52	20.70	1445.59	11369.27	8434.52
1229.29	18348.83	44.58	31843.70	18489.53	1693.61	874.68	109.84	.60	662.90	2175.28	12388.76
5112.69	21748.41	2242.62	24707.72	17344.57	1670.50	617.54	81.43	488.39	2566.73	1799.94	4883.58
9467.81	21743.40	2704.63	33200.84	13307.78	1539.95	715.74	878.15	259.30	2028.49	2980.55	11714.88
8231.47	24807.01	2819.24	35547.73	17105.98	1418.57	182.99	710.82	.....	604.08	4949.12	9281.96
11945.32	17618.96	2768.48	32387.76	13960.8	1753.94	404.13	117.33	98.59	625.85	4110.84	11222.27
6539.06	87742.97	11161.59	45433.32	22108.47	1538.04	100.62	150.80	41.69	6556.94	5075.75	8941.01
11141.41	19311.93	9659.61	39087.93	15486.07	1707.57	835.61	38.00	.....	864.49	1430.05	11381.19
8120.95	12370.63	5353.23	21844.36	962.50	1073.75	138.22	98.81	651.14	421.14	5583.33	4129.17
3996.75	11496.12	479.45	16962.82	8720.88	875.36	147.76	28.68	.....	20.02	1280.87	4932.83
6545.97	12027.23	2567.75	23111.95	12868.36	1212.22	602.63	63.84	49.95	816.65	4186.42	8362.46
7618.05	21322.47	2183.65	31819.17	13981.27	1708.68	320.51	483.42	78.22	2484.63	2230.11	9037.26
13003.33	42196.69	1783.72	55923.75	23755.71	2534.49	839.12	177.49	3404.96	2897.13	6927.44	10847.57
7839.68	26766.68	7707.83	42813.69	23440.72	2133.40	243.91	311.32	973.66	8463.74	6844.22	7896.43
13423.73	23935.35	5621.69	39932.06	17753.95	1735.21	753.70	577.99	10.10	1045.28	7500.58	10548.30
1630.98	8705.91	8793.77	14705.96	7130.04	1066.19	50.09	1.35	.....	116.29	8717.25	2084.75
4099.73	13447.24	1707.43	14651.45	9721.85	1216.96	359.75	201.98	172.10	812.54	3219.13	4151.84
6640.94	16037.86	2493.54	25423.36	11338.74	1375.27	621.66	177.27	.....	331.21	1783.56	9512.65
3973.78	26338.32	6484.82	37006.92	26514.31	1522.53	437.43	155.30	397.28	1683.79	1549.91	4631.97
2432.42	11547.67	1593.54	15572.93	7840.13	981.22	120.54	69.83	.....	279.65	2980.78	3281.24
6643.81	45382.98	781.07	63267.36	33975.82	4.93.29	1593.99	435.39	9.85	2434.10	6788.03	4801.73
4921.41	13826.46	295.57	19046.44	10551.78	758.20	806.48	.....	.....	1045.75	2968.87	8415.91
10070.58	24089.96	1388.07	35508.59	16951.84	1345.05	53.22	139.68	10.41	753.20	2422.89	12326.24
5352.14	20170.22	2082.72	27506.08	1253.77	913.00	232.98	110.65	86.14	539.95	6065.07	6999.54
7812.42	15313.72	8939.20	26117.34	12105.51	1600.64	189.23	118.07	2.45	465.87	8310.76	8544.79
10123.96	17836.41	1363.11	29823.48	14434.51	1425.69	386.84	195.81	399.05	853.82	2672.85	9463.41
9721.29	17554.83	1702.16	28937.80	11818.56	1354.59	790.45	1304.29	.....	715.15	8106.04	10393.78
6924.31	18920.02	2040.92	22885.25	10993.19	1269.42	111.55	181.30	.....	91.55	8733.82	7505.13
8711.10	21123.96	1856.52	31690.68	19089.86	1125.68	240.20	327.67	8.54	128.43	1869.97	10380.91
10083.94	19268.66	2120.48	31211.98	13059.71	1582.72	479.58	79.40	7.91	2180.89	2923.82	11607.95
8032.77	21178.00	2180.46	31401.13	12420.95	1427.44	291.48	45.98	470.83	1342.17	3502.83	11435.70
13020.76	25070.41	1979.66	39944.82	19499.78	1852.90	264.56	152.92	6.00	2762.94	2815.97	12371.40
11153.00	25715.81	1873.47	38745.78	18523.06	1989.21	583.70	131.75	344.09	3151.53	2800.60	11323.22
5142.84	14442.65	2893.02	22648.01	11268.32	1347.33	434.85	83.56	...	239.43	2770.25	6638.23
4466.86	13761.89	548.84	17776.09	11144.58	911.77	149.85	89.41	.....	101.58	515.56	492.40
4435.77	12799.87	1543.62	18782.86	9858.80	862.62	173.05	19.85	2.06	842.64	2535.76	4968.49
5408.97	15336.71	2879.41	28635.09	12154.14	1023.52	278.52	.....	1.14	252.14	2724.67	7184.96
8771.28	17080.56	8583.76	31900.60	12501.85	1723.54	1055.83	34.51	8.76	1417.09	4526.88	10117.65
12212.52	19249.99	1987.68	33450.19	18510.78	1993.61	252.90	175.17	194.57	2540.02	8134.01	11649.13
8425.26	25062.05	12008.12	35686.55	17342.47	1592.50	863.14	28.40	278.83	2207.89	2615.45	1127.87

ABSTRACT [B]—
SCHOOL

Counties.	Schoolhouse Fund.									
	Debit.			Total debit or credit	Credit.					
	On hand at last report.	Received from district tax.	Received from other sources.		Paid for school-houses and sites.	Paid on bonds and interest.	Paid for library books.	Transferred to other funds.	Paid for other purposes.	On hand.
Jefferson	\$ 823.08	\$ 1303.42	\$ 7343.5	\$ 8970.06	\$ 7381.73	\$ 846.54	.....	\$ 166.87	\$ 632.57	\$ 472.39
Johnson.....	2391.43	14665.03	8706.93	25763.39	3169.04	15596.83	\$ 2.15	519.87	5239.64	1312.86
Jones	804.38	4073.02	258.81	5136.21	1087.19	1815.54	.....	337.97	808.72	2086.90
Keokuk.....	3454.78	11404.46	2448.54	17307.78	8261.56	5888.71	.....	9.77	501.40	2846.39
Kossuth.....	9053.62	12010.48	9244.36	20318.46	10353.02	4418.79	.....	550.00	6586.39	8410.26
Lee.....	439.55	8258.16	2611.0	6338.75	2372.15	1515.0	.....	167.25	1609.74	375.54
Linn	11719.91	42671.9	2322.7	56714.60	24912.20	17361.2	.....	842.59	2041.48	11567.06
Louisa	1162.41	4100.26	6002.9	11265.60	5149.59	182.17	.....	179.80	825.55	4929.58
Lucas	2012.10	9198.2	900.7	12111.11	2775.61	4854.7	.....	301.47	128.83	4250.50
Lyon.....	7790.12	24576.8	4074.41	36441.40	5428.24	22178.86	.....	825.85	163.56	8145.34
Madison	1404.49	6202.8	6999.19	14613.56	6122.69	3304.0	.....	126.23	2626.76	2533.86
Mahaska.....	1899.47	8065.4	2967.9	12732.82	1833.98	4467.68	.....	1.35	2737.19	5692.42
Marion.....	8265.28	7701.65	8006.61	23978.42	12323.55	3502.9	.....	529.11	1668.78	5949.05
Marshall.....	4170.41	9120.25	783.2	14063.90	3386.00	4132.7	.....	789.20	1587.06	4167.93
Mills	2333.85	5302.81	216.41	1822.90	3237.89	3955.85	40.55	185.15	741.33	2712.54
Mitchell.....	1935.34	4222.07	638.5	6795.97	118.26	3060.41	.....	.95	283.42	3302.93
Monona.....	7257.9	9781.4	1730.5	18719.92	9003.22	3490.4	.....	861.32	143.75	4036.23
Monroe.....	9339.68	8873.6	1097.1	19309.44	10131.47	6503.81	.....	94.99	500.81	2674.56
Montgomery ..	2734.3	8190.92	2193.4	13123.75	1970.00	3981.00	.....	783.00	5001.84	1507.91
Muscatine.....	188.2	5232.08	.....	5410.81	150.00	2510.0	.....	169.57	2491.17	89.57
O'Brien.....	3220.53	14057.16	2721.3	19997.95	3924.78	4714.11	.....	21.78	6255.2	5982.09
Osceola.....	2537.04	6330.3	392.94	9210.28	3994.68	2275.15	.....	1032.0	612.82	1945.83
Page	3724.54	8334.3	17760.8	23819.78	16056.04	3505.68	.....	1395.47	486.83	8425.93
Palo Alto.....	4883.57	6388.87	253.57	11561.01	1343.55	2111.0	.....	527.80	174.31	7404.32
Plymouth	12853.16	9373.85	590.08	23323.10	1501.66	4552.10	.....	1100.00	96.06	2273.20
Pocahontas.....	8093.95	10212.58	1206.1	19575.94	9730.65	1831.4	6.00	1123.84	697.35	6133.61
Polk.....	3275.76	74594.2	2854.90	103494.28	33444.42	32137.75	332.50	1162.40	7604.6	26512.57
Pottawattamie	3869.22	30428.07	16084.27	40385.56	23150.50	10149.8	.....	729.41	1008.70	5347.07
Poweshiek.....	7409.73	17356.6	1092.9	25859.33	13963.08	2602.75	.....	1652.87	1353.32	4352.37
Ringgold.....	5163.70	5787.25	1295.0	12251.07	2122.90	2932.30	.....	208.34	892.15	6095.33
Sac.....	3535.84	11773.42	15316.8	30956.10	5338.47	2816.71	.....	1132.5	3078.08	18564.23
Scott.....	9411.4	19917.97	4214.87	118944.27	60338.65	15547.31	.....	1075.37	1009.24	49958.70
Shelby	1434.20	6798.75	450.23	8671.21	2591.47	3804.9	.....	84.42	262.05	1928.29
Sioux	7635.8	9055.98	342.11	16833.89	4342.03	4330.51	.....	802.71	1122.4	5436.04
Story	5113.79	9066.20	9435.7	23515.70	14239.74	3914.32	10.00	47.55	524.47	4789.63
Tama.....	14554.17	10747.65	5981.9	31483.69	14251.49	7535.84	23.85	60.78	1395.62	8195.97
Taylor	14676.66	7470.17	1215.74	23362.57	7925.77	2690.70	.....	.....	1041.75	11794.29
Union.....	7326.90	10234.07	3249.95	20834.92	8724.48	2978.03	.....	267.47	247.92	8647.00
Van Buren.....	5040.68	3825.35	34.85	8700.41	4308.99	667.64	.....	243.69	170.00	3210.13
Wapello	2539.98	14916.59	152.10	19008.67	2019.31	8452.55	.....	3367.79	844.35	4924.69
Warren.....	1032.36	7443.3	2740.5	11251.23	519.84	4002.78	.....	542.83	117.0	1463.76
Washington....	1601.19	5473.53	5777.85	12852.53	5359.70	6464.62	13.87	172.71	55.10	905.55
Wayne.....	674.09	5725.78	15803.3	22003.19	1636.64	1219.67	.....	738.15	362.94	9936.79
Webster.....	3073.69	16734.15	30177.2	48935.03	30933.79	4803.51	49.87	1826.15	3050.40	8516.81
Winnebago.....	1342.15	5178.3	413.12	6931.59	540.10	4373.10	.....	70.47	438.46	1809.46
Winneshiek....	2407.21	7183.32	3225.54	12814.07	2923.45	2491.25	.....	134.27	4623.31	2649.81
Woodbury.....	6112.05	6703.58	82081.38	99897.03	63058.82	20247.61	.....	1290.08	6915.34	3585.18
Worth	1843.64	3195.85	435.68	5475.17	1119.53	1246.62	10.80	520.44	486.84	20091.84
Wright.....	3693.08	3809.92	13263.98	20769.98	14060.25	8544.29	.....	1296.15	356.34	1513.05
Total.....	478110.12	260811.22	56126.62	8000177.96	777241.34	478318.26	802.83	50957.51	145130.90	552787.00

REPORT OF COUNTY SUPERINTENDENTS.

REPORTS FOR 1905—CONTINUED.**FINANCERS.**

Contingent Fund.

Debit.			Total debit or credit	Credit.				Total	Debit.		Total
On hand at last report.	Received from district tax.	Received from other sources.		Paid for fuel, rent, repairs insurance and janitors.	Paid secretaries and translators.	Paid for records and apparatus.	Paid for library books and dictionaries.		Paid for other purposes.	On hand.	
4822.20	2551.49	1571.10	15648.94	1079.55	251.06	87.31	898.01	587.23	4822.20		
6240.08	25437.06	4971.78	30748.79	1798.40	598.05	160.84	3490.41	5848.22	6197.11		
8069.41	19464.05	4708.35	32099.81	1865.81	511.94	90.85	3419.83	5858.16	10384.10		
9365.42	21009.8	3764.74	34619.50	1854.22	379.25	899.81	15.00	719.68	3128.27		
11898.97	25491.16	3522.10	41381.63	1967.94	471.47	379.22	382.84	707.61	3779.00		
13917.72	26422.68	1519.88	39661.37	1879.85	149.22	118.52	14.12	1639.95	7450.30		
1075.21	68483.71	30997.14	93385.08	8491.70	606.79	808.86	4107.84	5192.85	25177.43		
3000.47	13117.07	2250.87	16357.5	1008.78	394.57	372.81	.....	548.66	2308.48	
3441.01	14984.06	1189.58	19614.83	1100.54	108.64	83.78	251.97	442.46	1227.11		
11136.42	20244.76	547.86	31929.01	1948.43	428.26	228.90	73.80	1546.47	518.32		
7195.75	19416.55	1414.04	27026.54	1128.59	491.25	186.18	.....	1912.90	840.14	
9400.88	30972.70	4241.65	34793.27	1880.96	173.23	74.88	.....	186.46	4470.01	
11400.59	21598.85	8092.3	36216.58	1843.82	995.72	95.21	6.12	1536.81	6566.86		
10001.87	23975.07	3648.78	44905.12	1517.45	901.98	537.49	1654.55	3916.54	4428.98		
7147.05	14917.67	2952.92	25148.49	1574.96	341.84	404.86	504.57	889.34	3416.41		
4080.74	14784.75	1221.10	24381.70	991.34	89.00	68.94	.....	625.76	3108.61	
7750.36	23965.71	3848.76	35276.77	1346.9	297.05	48.37	.....	858.56	5092.08	
3479.95	1331.34	2196.21	19087.41	1148.21	80.5	204.81	45.97	631.64	3102.89		
7008.57	18792.81	4998.82	31294.70	1100.84	1571.19	30.98	148.67	1440.64	3979.65		
3165.66	26447.45	4028.28	35611.42	1686.35	518.56	66.87	13.85	5162.71	7768.34		
4400.38	22445.63	1633.11	30524.12	1341.75	211.54	138.89	21.95	190.84	8654.64		
6123.46	11150.85	930.05	17308.85	1012.84	497.8	9.00	.....	289.31	1459.49	
11810.94	22451.70	3488.77	36315.85	1418.27	120.29	124.43	126.61	1957.41	8381.94		
5404.83	17706.08	732.24	23480.95	1119.64	226.44	74.08	.....	573.54	875.30	
9452.16	21119.66	764.44	39154.80	2589.17	150.84	235.06	.....	358.14	3745.93	
5843.94	17944.54	1191.92	25320.43	1572.32	180.07	6.40	140.49	405.42	2028.98		
12491.67	139007.81	8475.81	148777.69	4502.10	675.84	319.57	3835.64	6564.18	7427.61		
13420.68	70992.60	4670.05	88629.33	8279.38	1151.04	446.25	2701.21	1545.67	6354.61		
7569.77	32137.74	5338.92	35131.43	1253.04	190.72	537.32	1065.49	1461.84	1907.07		
6648.40	18165.85	1884.07	31179.82	1365.95	105.78	45.75	137.19	812.66	1595.64		
7652.84	17977.94	3789.55	30650.77	1987.80	143.19	313.56	.....	955.31	6140.43	
1944.94	76345.84	10657.45	304159.08	8126.76	609.27	335.45	.....	8412.89	14185.81	
18073.02	17761.47	1479.77	81614.26	1765.06	278.20	172.09	31.15	2637.78	2129.19		
3749.49	39715.61	1816.65	80271.75	2944.21	217.2	151.02	193.42	651.87	3398.87		
2636.00	24386.52	6556.66	39758.30	1634.32	646.37	449.44	92.38	1830.26	4945.98		
14949.80	23480.78	8419.64	41079.11	2216.00	139.86	237.97	262.40	.....	3976.89	
8743.51	16442.60	2792.86	27928.17	1458.91	987.62	22.45	.....	908.58	1934.91	
2548.40	20348.58	8165.51	33063.56	1218.89	85.35	252.56	133.00	4396.70	7834.78		
47389.90	10976.34	523.13	16239.27	1085.82	101.70	.....	.....	521.27	2864.80
4582.34	23408.80	5547.09	48537.75	1692.67	569.85	11.85	6.41	3171.19	5502.82		
9162.02	30144.48	8.77.83	31428.32	1419.41	183.74	86.18	27.80	801.18	3489.79		
6477.46	16.76.56	1766.96	34180.96	1339.85	199.20	139.58	6.80	199.58	1380.81		
4005.89	14168.74	2552.84	31134.94	952.39	120.68	186.90	166.62	583.81	2964.81		
9880.18	28706.90	1892.61	39560.57	2096.97	114.48	519.65	14.04	1841.31	3401.57		
6375.77	18148.30	711.08	23435.03	958.07	199.74	82.51	337.11	875.45	4604.81		
4088.39	15631.49	1689.30	22306.93	1871.86	263.28	54.86	.....	638.30	1443.15	
8749.77	77070.17	9847.78	96557.72	2568.18	460.32	1072.83	288.49	749.45	15212.84		
3717.89	16118.20	1583.74	15600.73	600.13	210.51	47.92	4.78	441.70	2448.18		
8484.61	27997.15	2308.83	39670.58	1100.85	.....	66.50	5.96	1000.24	2832.56	
77982.84	238045.28	510770.27	3200035.69	1707886.51	166187.04	89919.87	12028.86	25302.57	148893.94		
									207050.27		
									819800.59		

ABSTRACT [C]—

EXAMINATION

Counties.	Number and Classes of Certificates Issued.									Total number issued.	
	First.		Second.		Third.		Special.		Kind er-r- en.*		
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Females.	Males.	Females.
Adair.....	4	83	10	78	18	100	.....	.....	.....	80	211
Adams.....	6	19	17	180	.....	.....	.....	.....	.....	23	151
Allamakee.....	2	17	15	78	5	63	2	9	.....	14	167
Appanoose.....	6	8	11	106	12	67	.....	9	14	52	204
Audubon.....	4	23	12	79	12	76	.....	3	.....	28	181
Benton.....	14	57	30	156	.....	.....	.....	.....	.....	44	213
Black Hawk.....	2	36	19	184	.....	.....	4	19	5	25	244
Boone.....	8	42	14	139	23	141	1	1	.....	46	323
Bremer.....	5	34	13	135	.....	.....	.....	1	2	17	172
Buchanan.....	6	79	16	134	.....	.....	.....	8	.....	22	217
Buena Vista.....	8	43	6	103	3	44	.....	.....	.....	12	190
Butler.....	8	40	28	128	.....	.....	.....	.....	.....	35	163
Calhoun.....	5	36	9	139	3	54	.....	9	.....	17	236
Carroll.....	10	34	16	91	9	45	1	6	.....	36	176
Cass.....	6	42	17	173	3	31	.....	3	.....	26	249
Cedar.....	4	20	22	155	1	7	.....	4	.....	27	186
Cerro Gordo.....	5	35	18	153	3	23	2	12	.....	28	222
Cherokee.....	2	31	17	146	3	26	.....	.....	.....	22	203
Chickasaw.....	.....	30	5	65	5	45	.....	13	.....	10	153
Clarke.....	3	26	18	48	23	78	.....	1	.....	44	152
Clay.....	6	33	10	140	1	14	1	6	.....	18	193
Clayton.....	4	15	16	142	14	59	7	1	.....	41	217
Clinton.....	3	16	4	132	12	172	6	12	.....	24	332
Crawford.....	6	42	7	149	3	46	1	9	3	17	249
Dallas.....	8	30	23	160	4	53	.....	3	.....	40	251
Davis.....	9	6	13	54	16	49	1	1	.....	44	110
Decatur.....	6	31	15	107	16	36	.....	.....	.....	37	224
Delaware.....	2	43	5	60	7	74	.....	.....	.....	14	177
Des Moines.....	1	8	14	163	.....	.....	3	3	10	23	189
Dickinson.....	2	31	7	92	1	9	.....	1	.....	10	133
Dubuque.....	4	31	19	199	1	9	6	7	12	30	253
Emmet.....	3	17	5	64	2	43	.....	7	.....	10	136
Fayette.....	1	31	13	137	13	32	15	50	.....	42	250
Floyd.....	4	21	12	162	.....	1	2	5	2	13	191
Franklin.....	6	24	13	114	14	71	.....	.....	.....	38	209
Fremont.....	5	21	5	137	12	37	.....	3	.....	22	223
Green.....	3	31	7	135	10	43	2	14	.....	27	223
Grundy.....	9	26	26	163	.....	.....	.....	.....	.....	35	192
Guthrie.....	12	39	12	33	17	104	.....	1	.....	41	232
Hamilton.....	1	13	7	97	17	105	2	5	3	23	223
Hancock.....	3	22	33	133	3	61	.....	3	.....	49	222
Hardin.....	5	33	13	152	13	52	1	7	1	37	250
Harrison.....	11	39	10	139	.....	.....	1	5	.....	23	232
Henry.....	3	31	17	12	6	30	.....	3	2	31	193
Howard.....	5	23	7	97	3	54	.....	4	.....	15	133
Humbolt.....	.....	14	3	33	10	74	.....	2	.....	13	173
Ida.....	3	35	6	90	.....	23	.....	.....	.....	11	143
Iowa.....	3	22	33	110	3	75	2	6	.....	51	213
Jackson.....	1	13	6	142	11	53	.....	.....	.....	13	213
Jasper.....	4	31	15	233	.....	.....	.....	4	.....	19	233

REPORT OF COUNTY SUPERINTENDENTS.

REPORTS FOR 1905—CONTINUED.

OF TEACHERS.

Number of rejections.		Candidates examined.		Different persons licensed.		Average age of teachers.		No experience.	Taught less than one year.	Hold state license.
Males.	Females.	Males.	Females.	Males.						
8	48	35	854	26	110	26	21	4	26	2
3	37	27	158	22	12	20	22 1/2	8	17	2
4	42	17	204	8	141				11	3
12	20	45	284	31	18	24	23		85	14
11	29	26	210	25	189	27 7	23	6	29	7
29	60	75	278	44	212	24		6	28	17
4	19	29	263	27	225	25	23	10	83	8
8	23	51	257	32	211	27	20	6	32	11
2	24	19	196	16	136	24	22	4	30	9
1	4	23	231	18	76	25	20	6	49	4
	17	12	207	1	16	24	22	2	44	2
21	64	57	232	25	15	22	21	13		6
1	8		272	14	19	25	22	6	35	7
12	55		231	31	160	25	21	6	26	2
5	21	31	270	4	176	23	2	4	44	3
4	22	31	203	14	185	25	21	6	28	5
8	42	26	204	27	207	23 4	22 3	9	34	3
5	36	26	226	19	169	25 6	27 9	7	36	3
5	36	15	203	13	128	19	25	4	15	7
1	19	45	171	34	119	25	21	11	39	12
4	11	22	209	18	16	29	21	3	34	2
9	50	50	267	23	191	25	22	7	42	26
6	72	23	424	22	302	27	23	2	5	8
	71		520	16	197	28	21	3	30	8
8	47	48	206	40	222	24	21	4	51	19
14	34	53	144	5	151	25	22	8	24	2
3	4	40	223	3	175	21	22 7	10	44	14
2	39	16	216	14	160	27	23	8	20	1
1	25	24	214	2	175	22	20	4	15	6
	12	10	145	10	119	21	21 5	4	39	1
	28	50	266		282	23 5	25		16	1
3	31	13	167	9	117	24 1	22 8	1	18	2
5	36	47	815	49	334	23	22	3	20	6
4	27	23	218	15	172	24	21	4	23	1
12	55	50	364		301	24	22		4	
10	20	32	243	17	194	24	22	10	3	15
15	59	42	302	26	191	24	22	7	32	10
2	3	37	315	30	141	24	21	6	22	10
8	14	44	245	27	170	26	24	12	42	21
10	53	35	251	28	173	27	23	9	32	5
8	20	57	242	25	149	24	22	14	34	1
12	25	43	275	23	156	26	23	9	39	13
7	180	34	302	22	232	22	19	4	35	2
6	72	26	265	24	159	21 5	23 5	13	40	5
1	42	21	226	9	152	20	20	1	32	3
	34	19	197	17	147	22 5	22 2	6	30	10
	7	11	155	6	130			1	15	4
	21	52	230	45	179	21	20	5	34	6
1	10	10	228	16	213	27	24	4	4	1
25	184	42	437	19	269	24	25	10	47	4

ABSTRACT [C]—

EXAMINATION

County.	Number and Classes of Certificates Issued.									Total number issued.	
	First.		Second.		Third.		Special.		Kind er'-r-en.*		
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Females.	Males.	Females.
Jefferson.....	4	5	14	131	6	64	.....	3	.....	24	103
Joh nson.....	7	35	15	292	.....	.....	5	8	.....	27	340
Jones.....	3	81	14	160	.....	.....	.....	1	1	17	193
Keokuk.....	12	85	49	217	.....	.....	.....	1	.....	59	252
Kossuth.....	1	21	22	156	16	92	1	20	.....	40	239
Lee.....	3	7	13	179	5	51	5	9	.....	24	246
Linn.....	2	53	5	183	12	194	2	31	.....	21	465
Louisa.....	5	13	6	54	12	60	.....	8	.....	25	130
Lucas.....	1	14	7	46	24	101	.....	.....	.....	25	181
Lyon.....	10	46	15	102	7	16	1	8	.....	33	161
Madison.....	6	30	14	185	7	86	.....	.....	.....	27	251
Mahaska.....	4	6	12	85	47	218	2	3	.....	65	317
Marion.....	7	21	6	63	17	109	2	4	1	32	198
Marshall.....	2	14	20	137	10	78	5	12	5	37	247
Mills.....	6	23	11	85	7	55	.....	2	.....	25	165
Mitchell.....	6	15	6	111	.....	.....	.....	3	.....	11	159
Monona.....	4	29	4	111	4	42	.....	.....	.....	17	182
Monroe.....	5	10	8	71	12	69	1	6	.....	24	156
Montgomery.....	11	39	5	81	5	50	.....	.....	.....	21	170
Muscatine.....	2	80	5	61	12	82	.....	2	.....	14	212
O'Brien.....	5	25	13	102	16	100	1	2	1	26	230
Osceola.....	2	13	10	79	4	37	.....	.....	.....	17	131
Page.....	4	12	4	124	4	73	.....	4	.....	12	213
Palo Alto.....	4	30	18	71	7	38	1	5	.....	34	135
Plymouth.....	5	13	5	146	1	22	.....	1	.....	12	183
Pocahontas.....	6	51	12	87	5	42	.....	.....	.....	2	180
Polk.....	8	131	25	202	.....	.....	31	112	37	59	542
Postawattamie.....	11	113	16	251	.....	.....	5	26	23	32	413
Poweshiek.....	7	34	13	90	5	46	.....	11	8	32	184
Ringgold.....	1	29	6	51	5	93	.....	1	.....	12	174
Sac.....	10	31	8	100	7	81	.....	4	.....	25	215
Scott.....	4	2	25	33	.....	.....	13	27	.....	43	360
Shelby.....	20	34	20	145	.....	.....	.....	.....	.....	40	179
Sioux.....	11	43	12	129	13	96	2	13	.....	26	281
Story.....	5	19	45	216	.....	.....	.....	.....	.....	50	248
Tama.....	9	42	17	196	.....	.....	5	7	.....	31	245
Taylor.....	3	41	8	43	24	104	.....	2	.....	35	190
Union.....	9	29	13	85	7	81	8	1	2	32	155
Van Buren.....	7	14	10	75	16	81	.....	1	.....	33	171
Wapello.....	2	14	10	165	5	87	4	11	.....	21	283
Warren.....	7	24	14	215	9	59	.....	4	.....	30	202
Washington.....	5	25	28	214	.....	.....	.....	.....	8	33	242
Wayne.....	10	17	31	140	20	54	.....	.....	.....	6	215
Webster.....	5	43	9	166	6	29	8	8	.....	25	246
Winnebago.....	12	33	9	79	1	33	.....	5	.....	22	150
Winnebush.....	3	12	18	118	13	54	.....	6	1	29	196
Woodbury.....	5	115	6	191	.....	4	18	12	1	24	328
Worth.....	9	26	28	78	.....	.....	.....	.....	.....	37	104
Wright.....	3	43	20	140	18	60	.....	5	.....	36	243
Totals.....	544	3,105	1,424	12,779	724	4,807	170	715	141	2,854	21,548

*No kindergarten certificates were issued to males.

REPORTS FOR 1905—CONTINUED.
OF TEACHERS.

Number of rejections		Candidates examined.		Different persons licensed.		Average age of teachers.		No experience.		Taught less than one year		Holding state license.		Members teachers' reading circle.
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
3	83	27	233	21	157	25	28	6	27	1	89	2	7	.....
2	17	29	84	19	153	22	28	1	82	1	48	3	8	25
6	52	25	245	15	177	21	23	5	89	6	9	3	5	4
5	47	61	800	82	132	25	24	10	85	9	20	12	6	.....
20	177	60	459	40	209	21	22	15	5	7	60	9	24	6
1	9	27	255	25	232	23	26	6	81	6	42	5	2	88
3	20	21	435	12	416	23	27	7	67	8	134	12	42	9
2	19	25	149	19	106	23	27	12	23	14	52	3	5	.....
4	50	24	211	27	134	20	23	5	8	5	9	8	.....	68
.....	9	83	170	30	145	25	22	11	21	15	27	5	10	25
8	19	80	270	26	229	34	26	7	87	7	23	4	4	145
10	87	75	474	52	233	24	22	13	45	10	29	10	6	.....
3	63	25	261	25	154	25	23	5	84	.....	28	2	8	.....
7	71	44	814	28	192	25	25	9	27	4	25	8	87	75
.....	45	21	210	22	127	28	23	6	32	1	3	1	6	.....
2	22	13	181	11	135	26	23	3	12	.....	12	4	2	101
1	11	15	193	16	158	27	21	4	47	1	27	8	10	.....
7	64	23	234	26	131	22	22	11	85	.....	9	.....	7	69
2	19	23	149	.....	.....	20	19	5	35	12	50	2	14	80
.....	.....	15	212	17	184	24	25	5	48	3	80	5	7	.....
.....	2	29	250	2	175	26	2	5	55	6	46	5	28	.....
8	41	20	172	8	133	27	23	8	23	2	85	1	5	42
8	91	15	804	11	185	29	24	2	42	2	86	7	40	117
17	124	47	253	23	100	24	20	12	57	7	80	4	5	2
7	32	19	231	17	180	25	22	2	24	4	49	5	8	50
2	57	25	233	23	154	26	22	7	47	4	84	7	13	.....
15	146	74	678	51	538	33	27	8	64	10	45	.....	.....	257
7	77	33	490	25	34	27	27	15	90	20	116	8	53	260
6	57	31	241	22	167	.....	.....	7	35	4	29	6	15	.....
.....	49	1	217	12	150	23	27	2	39	.....	15	5	8	80
2	53	27	269	17	161	31	22	6	19	8	9	7	11	.....
.....	7	43	967	4	849	34	27	1	85	2	8	9	2	.....
5	87	45	216	40	179	27	21	5	30	4	50	.....	.....	50
1	27	39	808	30	247	24	27	12	55	8	42	6	9	120
9	51	5	801	35	240	37	22	15	75	8	100	6	15	.....
8	67	34	340	28	224	37	22	10	31	5	88	6	8	102
9	21	41	211	33	165	23.5	22.8	18	27	20	67	2	11	.....
5	17	37	172	36	107	25	27	2	25	1	12	8	1	106
1	8	34	179	37	155	25	23	7	31	6	33	5	2	12
2	63	21	345	14	234	30	24	8	28	.....	.....	3	17	.....
4	16	34	218	25	137	33	21	4	34	3	24	6	5	18
2	61	57	303	24	181	28	22	17	41	4	87	6	12	33
4	15	65	230	39	168	25.5	22	5	24	2	43	4	8	.....
6	89	8	374	2	211	26	24	7	37	8	87	7	2	.....
.....	10	22	160	20	118	23.4	23	5	35	2	26	5	7	8
12	83	57	241	30	159	27	23	18	23	6	37	5	7	64
1	34	25	361	24	35	33	23	5	46	2	20	.....	.....	16
2	14	39	118	31	89	24	22	6	11	19	38	3	5	52
.....	8	34	256	27	161	21	23	8	51	7	56	4	21	.....
500	4143	3417	25742	2389	12049	*25	*22	612	3429	605	3735	444	1111	8163

*Average age of teachers.

ABSTRACT [D].

VISITATION OF SCHOOLS, APPEALS, ETC., 1903.

ABSTRACT [D]—CONTINUED

VISITATION OF SCHOOLS, APPEALS, ETC., 1905.

*Yes 65, No 22, Not reporting 2.

†Yes 51, No 46, Not reporting 2.

ABSTRACT [D].—CONTINUED.

SUMMARY OF SUPERINTENDENTS' WORK, 1905.

Counties.	Schoolrooms.											
Adair	161	90	90	75	322	241	165	Johnson.....	232	97	97	10
Adams	139	42	55	71	215	174	133	Jones	179	50	48	70
Allamakee....	136	97	88	86	326	181	168	Keokuk	204	75	80	59
Appanoose....	206	61	61	8	329	238	208	Kossuth	272	216	220	....
Audubon	129	62	65	60	249	209	138	Lee	205	19	205	50
Benton.....	236	60	63	50	346	257	189	Linn	442	106	121	72
Black Hawk ..	261	109	116	78	291	289	274	Lucas	124	75	89	42
Boone	221	127	162	34	411	369	291	Lyons	128	65	77	....
Bremer	143	138	290	48	315	189	139	Madison.....	175	174	198	30
Buchanan	194	5	300	100	244	289	197	Mahaska.....	235	70	70	....
Buena Vista ..	179	74	75	100	319	202	178	Marion	180	45	60	50
Butler	151	164	164	48	389	304	192	Marshall	245	125	125	48
Calhoun	168	198	210	75	390	257	199	Miller	132	50	72	90
Carroll	181	43	51	48	279	212	138	Monroe	142	132	179	40
Cass	198	40	....	....	301	216	....	Montgomery	145	99	104	45
Cedar	177	79	85	61	239	213	189	Montgomery	157	13	16	52
Cerro Gordo ..	211	112	....	....	300	256	212	Muscatine ..	136	100	110	100
Cherokee	174	179	208	20	364	225	182	O'Brien	188	145	191	40
Chickasaw	95	110	140	41	218	163	165	Decatur	115	75	110	50
Clarke	131	70	82	61	216	168	128	Delaware	178	71	71	83
Clay	155	151	165	80	231	216	164	Des Moines ..	215	41	42	75
Clayton	228	224	215	50	317	238	225	Dickinson ..	101	70	94	28
Clinton	297	175	237	55	484	406	330	Dubuque.....	259	186	162	6
Crawford	221	154	150	24	343	250	214	Emmet	106	109	241	75
Dallas	222	301	210	67	341	291	322	Fayette	250	61	70	65
Davis	122	23	35	40	202	154	150	Floyd	164	164	164	54
Decatur	159	80	68	68	266	20	169	Franklin	164	164	129	43
Delaware	172	80	84	36	332	171	171	Freemont	111	81	61	50
Des Moines	215	41	42	75	231	212	212	Greene	176	125	13	60
Dickinson	101	70	94	28	155	148	105	Grundy	161	102	115	28
Dubuque	259	186	162	6	316	288	....	Guthrie	191	60	70	45
Emmet	106	109	241	75	180	146	110	Hamilton	145	84	84	81
Fayette	250	61	70	65	362	292	257	Hancock	164	31	151	65
Floyd	164	164	164	54	240	204	114	Hardin	201	110	210	65
Franklin	164	164	129	43	313	247	170	Harrison	211	50	51	51
Freemont	111	81	61	50	216	240	171	Henry	41	58	60	50
Greene	176	125	13	60	324	250	18	Howard	127	111	215	76
Grundy	161	102	115	28	335	217	157	Humboldt	142	132	164	50
Guthrie	191	60	70	45	220	273	202	Ida	181	103	200	108
Hamilton	145	84	84	81	319	218	187	Iowa	71	146	180	75
Hancock	164	31	151	65	299	271	169	Jackson	204	81	37	61
Hardin	201	110	210	65	318	237	214	Jasper	251	115	115	61
Harrison	211	50	51	51	396	251	....	Jefferson	125	127	130	....
Henry	41	58	60	50	301	244	....				
Howard	127	111	215	76	247	193	132					
Humboldt	142	132	164	50	316	191	112					
Ida	181	103	200	108	151	115	115					
Iowa	71	146	180	75	288	251	190					
Jackson	204	81	37	61	247	236	203					
Jasper	251	115	115	61	489	312	330					
Jefferson	125	127	130	....	263	237	139					
								Total	10,470	10,487	12,746	4,232
									10,193	24,402	10,000	

ABSTRACT [D]—CONTINUED.

SUMMARY OF SUPERINTENDENT'S WORK, 1905.

Counties.	New schoolhouses.	Whole number.	Good.	Fair.	Poor.	Without suitable and separate outbldgs for each sex.	Schoolhouses provided with flags.	Counties.	New schoolhouses.	Whole number.	Good.	Fair.	Poor.	Without suitable and separate outbldgs for each sex.	Schoolhouses provided with flags.
Adair.....	1	189	78	56	10	8	....	Johnson.....	4	172	142	25	5	2	....
Adams.....	1	112	92	15	1	..	..	Jones.....	.....	189	60	70	9	23	90
Allamakee.....	2	184	103	29	2	2	76	Keokuk.....	2	146	97	48	6	....	80
Appanoose.....	3	192	25	77	86	...	14	Kossuth.....	2	216	103	61	62	93	6
Audubon.....	...	111	82	23	6	....	44	Lee.....	1	124	40	69	15	10	45
Benton.....	1	187	142	41	4	10	113	Linn.....	3	203	171	22	10	....	130
Black Hawk..	4	156	54	60	42	19	43	Louisa.....	1	90	52	27	11	7	51
Boone.....	2	157	108	46	8	..	149	Lucas.....	2	99	67	26	6	....	42
Bremer.....	...	112	92	14	6	1	68	Lyon.....	6	189	84	84	21	24	24
Buchanan.....	...	150	107	40	8	20	50	Madison.....	4	143	43	60	40	....	35
Buena Vista..	4	140	40	60	40	6	41	Mahaska.....	3	157	102	58	15	....	75
Butler.....	2	147	80	61	6	..	75	Marion.....	2	158	79	61	18	....	35
Calhoun.....	2	149	60	75	14	5	86	Marshall.....	...	152	76	46	80	....	50
Carroll..	2	146	86	32	22	...	54	Mills.....	...	92	20	72	....	....	13
Cass.....	2	155	77	62	10	..	...	Mitchell.....	...	107	54	21	30	....	54
Cedar.....	4	145	112	29	4	15	85	Monona.....	3	152	126	20	6	1	50
Cerro Gordo..	3	145	91	54	4	...	...	Monroe.....	2	104	84	53	17	65	12
Cherokee.....	2	144	11	26	6	6	...	Montgomery..	1	114	23	88	8	1	85
Chickasaw....	2	111	101	15	5	20	15	Muscatine....	...	105	80	35	40	1	106
Clarke.....	2	102	52	32	20	103	16	O'Brien.....	...	141	75	61	5	....	141
Clay.....	1	132	102	28	4	..	15	Osceola.....	1	84	42	50	2	7	75
Clayton.....	...	180	136	10	5	25	40	Page.....	2	110	75	53	12	....	55
Clinton.....	4	182	126	55	5	...	180	Palo Alto....	...	133	104	22	7	....	100
Crawford.....	3	130	143	15	2	10	25	Plymouth.....	3	182	112	63	2	....	24
Dallas.....	2	152	112	25	15	...	60	Pocahontas...	1	144	119	19	6	2	71
Davis.....	1	103	46	37	21	...	7	Polk.....	5	192	114	60	18	....	79
Decatur.....	3	123	44	75	4	8	6	Pottaw'tt'm'e	4	251	226	19	1	3	250
Delaware.....	2	145	122	14	2	3	121	Poweshiek..	2	145	115	23	7	1	66
Des Moines...	2	99	78	13	8	...	...	Ringgold.....	1	135	55	65	15	....	12
Dickinson....	...	74	60	6	4	...	4	Sac.....	2	144	78	87	29	8	15
Dubuque.....	1	150	60	60	85	12	85	Scott.....	1	127	105	20	2	8	....
Emmet.....	2	115	66	12	7	1	37	Shelby.....	1	146	100	31	10	....	140
Fayette.....	...	190	87	98	6	2	12	Sioux.....	...	187	70	100	17	25	....
Floyd.....	...	124	62	40	18	2	90	Story.....	...	152	74	46	82	....	98
Franklin.....	3	144	122	12	10	...	40	Tama.....	2	183	102	61	20	....	90
Fremont.....	1	129	106	18	8	...	25	Taylor.....	5	139	97	18	14	....	10
Greene.....	3	145	82	97	10	...	28	Union.....	3	122	64	57	1	....	52
Grundy.....	1	128	21	98	12	85	91	Van Buren..	1	115	86	75	4	9	53
Guthrie.....	1	150	58	80	21	....	2	Wapello.....	4	118	57	55	6	1	68
Hamilton.....	4	141	76	40	80	...	73	Warren.....	4	146	82	47	17	3	30
Hancock.....	3	136	112	24	...	...	54	Washington..	2	139	54	70	18	8	....
Hardin.....	1	148	85	32	25	...	105	Wayne.....	6	140	101	18	11	4	64
Harrison.....	4	162	81	49	3	...	...	Webster.....	4	180	126	54	10	8	85
Henry.....	...	109	7	34	5	...	...	Winnebago...	...	94	48	36	10	8	20
Howard.....	2	106	77	76	4	...	70	Winneahiek..	1	150	98	45	7	1	10
Humboldt....	1	112	15	99	...	...	8	Woodbury....	...	216	84	122	16	10	106
Ia.....	1	107	41	60	6	...	85	Worth.....	...	97	72	15	1	6	30
Iowa.....	1	143	70	48	30	2	29	Wright.....	3	141	80	108	...	....	180
Jackson.....	...	155	62	85	3	...	147	Totals	16	18,954	8,098	4,592	1,263	67	5,892
Jasper.....	3	192	113	64	15	...	81								
Jefferson.....	2	101	88	60	6	8	50								

ABSTRACT [E]—

TEACHERS'

County.	Where held.	Sessions.		Teachers in Attendance.			
		Commencing	Con't'g weeks. Number daily.	Males.	Females.	Total.	Graduates.
Adair.....	Greenfield.....	July		12	179	185	...
Adams.....	Corning.....	June		6	129	135	...
Allamakee.....	Waukon.....	August		8	154	162	...
Appanoose.....	Centerville.....	August		84	177	216	...
Audubon.....	Audubon.....	July		18	119	182	...
Benton.....	Vinton.....	July		47	216	265	...
Black Hawk.....	Waterloo.....	July		11	192	203	...
Boone.....	Boone.....	August		29	239	278	...
Bremer.....	Waverly.....	July		8	127	136	...
Buchanan.....	Independence.....	August		18	187	200	...
Buena Vista.....	Storm Lake.....	July		6	191	194	...
Butler.....	Shell Rock.....	July		27	163	190	...
Calhoun.....	Rockwell City.....	August		17	166	185	...
Carroll.....	Carroll.....	June		23	197	207	...
Cass.....	Atlantic.....	June		9	174	183	...
Cedar.....	Tipton.....	June		11	147	153	...
Cerro Gordo.....	Mason City.....	August		28	204	227	...
Cherokee.....	Cherokee.....	June		12	145	197	...
Chickasaw.....	New Hampton.....	July		8	154	162	...
Clarke.....	Oscola.....	July		8	114	134	...
Clay.....	Spencer.....	July		10	128	138	...
Clayton.....	Elkader.....	July		22	207	228	...
Clinton.....	Clinton.....	August		17	313	330	...
Crawford.....	Oenison.....	August		7	204	211	...
Dallas.....	Adel.....	July		45	207	251	...
Davis.....	Bloomfield.....	August		47	107	156	...
Decatur.....	Leon.....	July		24	113	139	12
Delaware.....	Manchester.....	August		7	150	157	...
Des Moines.....	Berlington.....	June		18	167	179	...
Dickinson.....	Spirit Lake.....	August		8	114	122	...
Dubuque.....	Dubuque.....	August		12	300	312	...
Emmet.....	Estherville.....	August		8	112	120	...
Fayette.....	Fayette.....	July		9	211	220	115
Floyd.....	Charles City.....	June		6	183	189	...
Franklin.....	Hampton.....	July		17	168	187	...
Freemont.....	Sidney.....	August		13	147	160	...
Greene.....	Jefferson.....	June		17	161	178	...
Grundy.....	Grundy Center.....	June		16	122	138	...
Guthrie.....	Guthrie Center.....	August		20	152	181	...
Hamilton.....	Webster City.....	August		30	208	238	...
Hancock.....	Garner.....	August		20	126	146	...
Hardin.....	Edora.....	July		20	180	200	2
Harrison.....	Logan.....	July		4	187	194	...
Henry.....	Mount Pleasant.....	June		17	167	184	1
Howard.....	Creco.....	March		16	140	156	...
Humboldt.....	Humboldt.....	July		2	55	57	...
Ida.....	Ida Grove.....	March		7	141	148	...
Iowa.....	Marengo.....	July		12	190	198	...
Jackson.....	Bellevue.....	July		15	180	194	...
Jasper.....	Newton.....	July		6	149	154	...
				20	202	197	...

REPORT FOR 1905.

NORMAL INSTITUTE.

Institute fund.								
Receipts.					Total.	Expenditures.		
On hand at last report.	Examination fees.	Registration fees.	State Appropriations.	County appropriation and sundries.		Instruction and lectures.	Incidentals.	Unexpended.
40.20	\$ 839.00	\$ 185.00	\$ 50.00	\$	\$ 604.20	\$ 465.50	\$ 28.50	\$ 110.20
172.48	240.00	135.00	50.00	29.40	619.88	430.00	28.77	136.11
292.00	245.00	162.00	50.00	.....	749.00	348.07	18.75	332.18
156.50	848.00	218.00	50.00	.....	762.50	571.50	77.00	114.00
53.10	276.00	182.50	50.00	4.00	515.10	438.00	28.25	48.85
818.50	417.60	263.00	50.00	.....	1,047.50	641.80	218.00	188.20
254.43	230.00	203.00	50.00	.....	837.43	658.85	91.10	87.43
7.00	461.00	278.00	50.00	.....	796.00	695.00	65.00	36.00
.....	254.00	135.00	50.00	.....	489.00	340.00	78.89	20.61
111.48	829.00	200.00	50.00	.....	690.48	595.00	23.28	82.15
97.67	265.00	197.00	50.00	.....	609.67	439.90	87.30	82.47
26.70	837.00	180.00	50.00	.80	594.00	560.00	8.00	26.00
200.05	831.00	186.00	50.00	1.00	768.05	489.00	100.10	178.95
1.99	823.00	209.00	50.00	...	588.96	532.00	44.50	7.49
153.50	349.00	183.00	50.00	.....	784.50	620.00	45.00	69.50
416.98	268.00	158.00	50.00	.....	881.98	560.00	26.00	296.98
4.92	840.00	227.00	50.00	.....	621.92	878.00	80.25	213.67
891.63	297.00	197.00	50.00	.....	985.69	885.00	20.85	330.34
14.98	243.00	158.00	50.00	.....	470.98	416.00	.....	54.98
95.82	245.00	184.00	50.00	.....	524.82	383.00	85.00	106.82
108.92	275.00	198.00	50.00	.....	571.99	446.80	61.00	65.69
600.83	886.00	228.00	50.00	.....	1,274.83	760.00	181.50	333.33
831.62	502.00	380.00	50.00	.....	1,218.62	684.65	161.42	347.55
122.56	891.00	211.00	50.00	.....	774.56	561.26	104.85	103.95
17.68	379.00	251.00	50.00	.....	697.68	614.85	60.00	23.33
9.04	219.00	155.00	50.00	.....	483.04	363.25	17.75	52.04
.....	305.00	189.00	50.00	.....	494.00	345.00	42.20	106.80
98.18	277.00	157.00	50.00	.....	582.18	525.00	48.25	8.88
124.77	247.00	179.00	50.00	.....	602.77	407.00	69.50	126.27
10.24	183.00	122.00	50.00	.....	370.24	385.00	9.25	25.89
.80	351.00	318.00	50.00	.....	714.80	539.00	124.75	51.05
10.76	200.00	120.00	50.00	.....	380.76	290.00	73.70	17.06
93.04	834.00	230.00	50.00	.....	787.04	645.13	66.70	45.21
177.40	265.00	189.00	50.00	.....	611.40	510.00	50.00	71.40
187.07	844.00	197.00	50.00	.....	708.07	515.00	52.88	140.27
99.21	801.00	160.00	50.00	.....	610.21	365.35	18.00	226.96
125.10	838.00	178.00	50.00	.....	711.10	829.60	70.80	311.80
.94	290.00	188.00	50.00	.....	478.94	270.00	49.35	159.59
859.45	841.00	181.00	50.00	181.85	1,062.80	870.00	56.50	634.30
77.50	838.00	236.00	50.00	.....	701.50	665.00	10.50	26.00
213.60	839.00	146.00	50.00	.....	788.60	494.00	88.66	205.94
234.60	861.00	200.00	50.00	.....	835.00	641.50	93.50	100.00
807.08	496.00	184.00	50.00	22.00	1,008.08	402.87	81.85	573.31
.....	842.00	184.00	50.00	.....	576.00	519.75	56.25	.....
53.54	280.00	177.00	50.00	50.00	610.54	485.00	41.85	83.69
126.86	230.00	148.90	50.00	.....	624.86	357.50	17.85	249.51
120.00	206.00	129.00	50.00	.....	524.00	360.00	.....	164.00
11.99	816.00	184.00	50.00	.....	561.99	518.00	23.99	25.10
85.25	274.00	154.00	50.00	.....	518.25	256.50	59.00	67.75
80.45	504.00	307.00	50.00	.....	591.45	630.00	118.85	143.60

ABSTRACT (E)—

TEACHERS*

Jefferson.....	Fairfield	June 16	1	2	155	...
Johnson.....	Iowa City.....	July 17	2	2	202	9
Jones.....	Wyoming	July 24	1	1	172	..
Keokuk	Sigourney	Aug 14	1	2	249	9
Kossuth.....	Algona.....	June 16	2	1	217	....
Lee	Ft. Madison	Aug. 14	1	2	178	....
Linn	Marion.....	Aug. 7	1	2	434	....
Louisia.....	Wapello	June 16	2	2	164	....
Lucas	Chariton.....	June 24	1	2	152	....
Lyon	Rock Rapids.....	July 31	2	2	139	....
Madison.....	Winterset	July 3	1	2	197	....
Mahaska.....	Okauchosa.....	July 24	2	2	259	....
Marion	Knoxville	July 16	3	2	18	11
Marshall.....	Marshalltown	Aug. 7	2	2	140	....
Mills	Malvern	June 26	2	2	149	....
Mitchell.....	Orange	July 17	4	2	128	....
Monona	Orawa	Aug 14	1	2	180	....
Monroe	Albia	July 3	2	2	170	....
Montgomery.....	Red Oak	June 24	1	1	132	....
Muscataine.....	Muscataine	June 1	2	2	187	....
O'Brien.....	Primghar.....	Aug 7	2	2	185	33
Osceola	Sibney	April 1	1	2	126	....
Page	Clarinda	July 9	2	2	189	....
Palo Alto.....	Emmetsburg	Aug. 24	2	2	19	....
Plymouth.....	Lo Mars	June 16	2	2	171	....
Pocahontas.....	Pocahontas.....	Aug 17	2	2	124	....
Pike	Des Moines	Feb. 28	1	1	634	....
Pottawattamie	Council Bluffs.....	July 31	1	2	814	....
Poweshiek.....	Grinnell	June 1	1	2	176	....
Ringgold.....	Ma. Agr	April 6	1	2	212	....
Sac	Sac City	Aug 7	2	1	171	....
Scott	Haverport.....	June 19	2	2	171	....
Shelby	Harlan	March 23	1	2	167	....
Sioux.....	Hawarden	Aug. 7	1	2	167	....
Story.....	Nevada	July 1	2	2	162	....
Tama.....	Toledo	July 14	2	2	245	....
Taylor.....	Sedford	March 27	2	2	141	....
Union.....	Oreston	June 16	2	1	179	....
Van Buren	Keosauqua.....	Aug. 7	1	2	154	....
Wapello	Ottumwa	July 31	2	2	230	....
Warren.....	Indianola	June 19	2	2	201	....
Washington	Washington.....	March 20	1	2	22	....
Wayne	Corydon	June 12	2	2	26	....
Webster.....	St. Dodge	June 12	1	2	251	....
Winnebago	Forest City.....	April 3	1	2	111	....
Winneshiek	Decorah	Aug. 21	2	2	24	....
Woodbury.....	Sioux City.....	March 27	2	2	365	....
Worth	Northwood	July 17	2	2	6	....
Wright.....	Clarion	July 31	2	2	187	....
		Aug. 14	2	2		
Totals.....			1.8	21.7	5,025	100

*Average.

REPORTS FOR 1905—CONTINUED.

NORMAL INSTITUTES.

Institute fund.								
Receipts.					Total.	Expenditures.		
On hand at last report.	Examination fees.	Registration fees.	State appropriation.	County appropriation and sundries.		Instruction and lectures.	Incidental.	Unexpended.
\$ 183 6	\$ 279.00	\$ 155.00	\$ 50.00	.....	\$ 680.61	\$ 340.65	\$ 23.00	\$ 296.96
.....	418.00	209.00	50.00	\$ 61.10	781.10	650.00	81.10	.....
148.8	302.00	172.00	50.00	.....	672.80	484.75	95.60	112.59
.....	411.00	249.00	50.00	.....	710.00	710.00	.....	.....
208.9	538.00	217.00	50.00	.....	1,008.90	697.78	70.00	241.20
208.40	272.00	173.00	50.00	.....	728.40	485.00	72.20	221.20
854.37	563.00	431.00	50.00	.....	1,901.37	1,056.10	123.20	722.02
42.10	192.00	186.00	50.00	.....	420.10	315.00	105.10	.....
153.90	262.00	183.00	50.00	.....	598.90	291.50	20.00	282.40
33.00	257.00	189.00	50.00	.....	491.00	285.00	12.00	84.00
208.30	836.00	199.00	50.00	.....	788.30	250.00	55.00	453.37
71.92	489.00	259.00	50.00	.....	869.92	65.00	161.00	13.92
128.70	324.00	180.00	50.00	.....	677.70	451.00	120.20	106.48
558.80	378.00	166.00	50.00	.....	1,179.80	613.00	32.50	454.30
17.46	263.00	149.00	50.00	28.00	507.46	354.70	64.50	87.96
44.81	214.00	128.00	50.00	119.80	558.27	499.45	27.00	29.22
859.16	244.00	180.00	50.00	.....	833.16	434.00	82.60	316.50
7.69	768.00	180.00	50.00	.....	455.69	450.00	4.00	1.64
71.79	262.00	182.00	50.00	.....	515.79	274.00	84.00	157.71
38.69	298.00	187.00	50.00	.....	588.69	445.00	42.50	81.10
63.05	309.00	185.00	50.00	.....	612.05	498.80	38.80	74.40
41.13	207.00	126.00	50.00	40.00	464.13	355.00	59.50	56.54
162.40	825.00	189.00	50.00	.....	726.40	475.00	170.80	90.57
14.00	338.00	191.00	50.00	.....	591.00	520.00	.....	71.00
295.20	263.00	171.00	50.00	.....	779.20	400.00	137.00	242.20
2.05	815.00	129.00	50.00	.....	496.05	439.00	59.60	4.45
109.87	896.00	639.00	50.00	.....	1,683.37	823.75	541.17	318.45
881.99	653.00	810.00	50.00	.....	1,394.99	873.80	213.90	307.71
1.67	818.00	176.00	50.00	24.14	864.81	408.00	50.90	98.86
78.64	259.00	218.00	50.00	.....	593.64	553.70	23.94	18.00
118.80	836.00	171.00	50.00	.....	675.80	547.25	35.70	92.85
613.72	418.00	850.00	50.00	.....	1,429.72	482.15	122.50	825.07
6.00	815.00	157.00	50.00	.....	528.00	464.02	47.20	16.78
127.89	401.00	162.00	50.00	33.40	774.31	537.00	56.03	151.31
132.65	394.00	174.00	50.00	.....	740.65	405.00	151.35	184.30
154.82	809.00	258.00	50.00	.....	861.82	470.00	115.45	276.37
163.30	292.00	143.00	50.00	.....	655.30	640.00	.....	15.30
620.16	247.00	178.00	50.00	.....	1,095.16	867.00	85.00	643.16
199.37	234.00	150.00	50.00	1.00	684.87	378.00	34.00	222.87
276.07	880.00	226.00	50.00	.....	941.07	645.00	23.50	272.57
254.09	288.00	261.00	50.00	.....	789.09	331.50	97.35	310.24
326.69	890.00	228.00	50.00	.....	988.69	598.00	86.50	804.19
114.00	822.00	206.00	50.00	.....	692.00	432.04	40.00	219.96
390.23	414.00	251.00	50.00	2.25	1,107.48	562.85	113.35	431.28
18.60	227.00	110.00	50.00	.....	405.60	385.00	17.00	8.60
225.89	850.00	242.00	50.00	.....	867.89	558.30	107.96	201.63
11.78	506.00	258.00	50.00	.....	800.78	649.00	99.90	51.88
71.85	192.00	92.00	50.00	.....	405.85	267.00	10.00	128.85
18.60	886.00	187.00	50.00	.....	598.60	512.00	65.50	16.10
\$14,885.12	\$2,762.00	\$19,075.00	\$4,950.00	\$540.96	\$72,214.08	\$49,110.97	\$6,685.26	\$16,417.85

TEACHERS NORMAL INSTITUTE ABSTRACT [E]—CONTINUED.

Counties.	Conductors.	Instructors.
Adair.....	Ella C. Chantry...	L. N. Gerber, Adam Pickett, W. R. Andrews, Katie McGuire, D. R. Earle, E. R. Thomas.
Adams.....	A. B. Lewis.....	J. L. Mishler, A. M. M. Dornon, J. A. Griffith, J. W. Fowler, F. J. Realer, Jas. F. Bryan.
Allamakee....	J. E. Mills.....	S. Y. Gillan, H. A. Dwelle, F. H. Bloodgood, Alice E. Wilson, Arthur Wilson.
Appanoose....	W. M. Speers.....	Wm. Solomon, F. E. King, P. B. Woods, G. W. Bryan, Libbie Dean, E. N. Gibson, A. N. Palmer, Frederick E. Bolton.
Audubon.....	Arthur Farquhar.	F. E. Palmer, D. P. Repass, F. J. Mantz, F. A. Nims, Ella M. Stearns, Lura Beason.
Benton.....	O. R. Lowe.....	George A. Luxford, Anna E. Odland, Blanche Goudy, Mrs. O. J. Laylander, Geo. H. Betts, J. E. Stout.
Black Hawk..	Chas. Elliott.....	A. N. Clifford, Wm. Radebaugh, L. H. Minkel, Sarah A. Sprague, Abbie A. Hunter, Karl B. Stein, Maleta Mishler.
Boone.....	R. R. Cobb.....	J. C. King, I. O. Welty, M. N. Beddall, E. E. Bentley, Clara E. Thompson, E. L. Osburn, Lois Moberg.
Bremer.....	John T. Remick....	W. F. Cramer, Thos. J. Durant, W. F. Davidson, Alice Cary Wilson.
Buchanan....	M. J. Goodrich....	Edwin Dukes, Agnes M. Patterson, Ida B. Hullerman, Mildred I. Goodrich, Emilie Seltzer, Adda B. Patterson, R. B. Hasner, Ruby L. Peck.
Buena Vista..	A. V. Storm.....	W. J. Bell, A. C. Fuller, Agnes M. Hannum.
Butler.....	Ida F. Leydig.....	C. A. Fullerton, W. H. Bender, C. P. Colgrove, Maud Summers, Charlotte King, J. F. Overmyer, G. H. Betts.
Calhoun.....	W. R. Sandy.....	Preston W. Search, Avis Wescott, G. W. Young, Theodore Saam, A. B. Alderman, L. C. Bryan, David Patten.
Carroll.....	W. J. Barloon.....	R. C. Barrett, F. L. Hoffman, C. J. Johnson, C. F. Schell, E. L. Coburn, Julia Scurry.
Cass.....	Bertha A. Johnson.	W. E. Salisbury, O. J. McManus, D. C. Neifert, W. J. Cattell, Ralph R. Cobb, Anna O. Temple, Effie Shaneman.
Cedar.....	Geo. H. Kellogg...	E. L. Coburn, Jessie E. Hall, Elizabeth Bain, S. H. Mett, C. R. Aurner, Paul S. Tiler.
Cerro Gordo..	P. O. Cole.....	Wilbur H. Bender, H. H. Holmes, Wm. V. Pooley, Sarah E. Sprague, E. Blanche Renne, Mary G. Long.
Cherokee.....	A. V. Storm.....	Ruth Adair, J. R. Bayley, J. H. Beveridge, Charles E. Blodgett, John E. Cameron.
Chickasaw....	F. J. Conley.....	C. L. Woodfield, E. C. Hill, F. A. Schantz, T. J. Wormley, Julia Scurry.
Clarke.....	W. C. Davis.....	J. R. McComb, G. E. Wright, Mrs. I. F. Ware, Katherine M. Davis.
Clay.....	H. F. Fillmore....	C. J. Boyington, A. P. Heald, A. H. Avery, Mary Riley, E. G. Clark, Thos. H. McBride.
Clayton.....	C. J. Adam.....	Robt. Reinow, O. F. Pye, J. N. Dahm, H. L. Adams, G. E. Finch, Lillian Bridgeford.
Clinton.....	George E. Farrell.	Frank H. Hall, Preston W. Search, Wm. I. Crane, Abigail Lynch, Alice Rogers, Eleanor Flanagan.
Crawford....	F. L. Hoffman.....	W. C. Van Ness, J. H. Beveridge, W. J. Barloon, Bertha Cadwell, John E. Cameron, W. S. Mitchell, A. N. Palmer.
Dallas.....	R. F. Wood.....	W. B. Thornburgh, W. H. Gemmill, E. J. Pollock, W. M. Tarr, Emily Wagner, J. W. Graham, C. F. Barrows, Oscar Bogue.
Davis.....	W. F. Barr.....	Wilbur York, O. N. Spicer, Charlotte Sweney, Carrie Davis.
Decatur.....	Elm Hutchinson....	J. M. Pierce, F. P. Reed, A. L. Lyon, Mabel Herner, J. M. Howell.
Delaware....	Frank D. Joseph..	Geo. H. Betts, C. B. Scroggie, W. B. Guthrie, J. E. Vance, Amy Boggs, Blanch Goudy.
Des Moines..	Howard A. Mathews	R. B. Crone, F. M. Fultz, Maurice Ricker, Josephine B. Birt, W. L. Shutz, O. Emma Foster.
Dickinson....	N. F. Davidson....	W. S. Wilson, R. S. Whitley, C. J. Boyington, M. B. Hassel, Mary Riley.
Dubuque.....	P. J. Schroeder....	Henry Houck, Frances Wright, Alice Hopper, W. B. Guthrie, T. M. Irish, F. T. Oldt, J. N. Walsh, L. L. Lightcap.
Emmet.....	A. V. Storm.....	W. H. Bender, J. L. Mishler, A. P. Hargrave, Ida L. Davis, W. V. Howard.
Fayette.....	H. L. Adams.....	Jolly Twitchell, J. E. Stout, Margaret McCauley, J. E. Moore, A. E. Bennett.

TEACHERS NORMAL INSTITUTE—ABSTRACT [E] CONTINUED.

Counties.	Conductors.	Instructors.
Floyd.....	Frederick Schaub..	O. A. Kent, W. F. Fiske, W. G. Baab, E. F. Fisher, E. K. Pitts, E. O. Hill, L. Viola Waller, Bertha Cadwell.
Franklin.....	B. M. Campbell....	Bloodgood, Paul sh E. Sprague.
Fremont.....	Mattie Lee A. Lair	Allice E. Hopper, ty, Nellie Fisher,
Greene.....	A. J. Obinger....	J. T. Bradshaw, E. Palmer, H. A.
Grundy.....	J. D. Adams.....	Moore-Mitchell, ig.
Guthrie.....	M. P. Kenwerthy..	doCracken, O. V. ary Hughes.
Hamilton.....	L. N. Gerber.....	beth Bain, Eva J. M. Holaday, Ella
Hancock.....	A. M. Deyoe.....	el, W. J. Jerome, ri Williams, May
Hardin.....	Mrs. Ella B. Chasell	sa E. McGovern, L. F. Styles, Mito
Harrison.....	D. E. Brainard....	a. E. Blodgett, J.
Henry.....	David Williams....	k. P. C. Hayden, n. H. H. Packer,
Howard.....	Helen Chapin.....	E. Parsons, D. L. Blanche Gaudy,
Humboldt....	Clarence Messer...	J. R. Bowman, F. A. Welch, A. R. McCook, Ella Treat.
Ide.....	J. C. Hagler.....	E. G. Conley, E. A. Brown, E. L. Coburn, Mrs. Hattie Moore Mitchell, C. A. Cory.
Iowa.....	H. T. Ports.....	L. N. Gerber, W. S. Athearn, W. F. Barr, Mand Summers, Paul F. Voelker, Ed. F. Geiger.
Jackson.....	G. R. Scroggie.....	Preston W. Search, Hattie Moore-Mitchell, B. T. May, R. B. Grene, Bruce Francis, Jeanie Mae Gregor, K. B. Stein.
Jasper.....	J. E. Roberts.....	B. S. Aquish, Alice E. Boyard, Bernice Banghart, Omelia Collins, Mary G. Hancock, C. O. Dudley.
Jefferson.....	Anna White.....	Preston W. Search, E. J. H. Beard, E. H. Gifford, W. H. Bender, Florabel Patterson, Mrs. F. M. Rodgers.
Jehson.....	L. H. Langenburg..	B. A. Power, C. D. McClain, A. N. Palmer, Martha Emry, Mrs. Hattie Moore Mitchell.
Jones.....	Clifford B. Paul...	A. A. Wills, F. L. Mahanish, W. O. Wilcox, F. E. Bolton, R. W. Stice, B. Shipick, A. G. Smith, Alice Lavies, Laura Graham.
Keokuk.....	Cap. E. Miller.....	John E. Cameron, C. F. Garrett, F. D. Joseph, C. MacDunlap, Ira W. Howerth, C. E. Buckley, Mrs. C. B. Shaffer.
Kossuth.....	O. H. Belknap....	J. H. Morgan, T. P. Clevenger, Chas. Yeager, Hattie Perrier, Nina Lambdin, Manning Jaynes, Geo. W. Hopper, Hattie Moore-Mitchell, A. E. Win- ship, C. S. Hammock.
Lee.....	E. O. Lynn.....	H. L. Adams, C. E. Sweeney, Helen Wood, Grace River, A. N. Palmer, Josephine Burling.
Linn.....	J. E. Vance....	G. W. Walters, W. L. Barrett, P. C. Hayden, B. L. Reid, Alice O. Wilson, Alice Immegart, Preston W. Search.
Louis.....	Charles B. Wallace	G. E. Fitch, J. B. Bayley, Alice Hopper, E. E. Wat- son, R. R. Lewis, C. B. Paul, M. V. O'Shea.
Luna.....	Laura Fitch.....	C. R. Scroggie, L. Hill, J. A. McCulloch, Mary Hughes, Florence Klotz.
Lyon.....	A. W. Grissell....	W. N. Clifford, N. E. Palmer, S. W. Rowley, Ines Kelso, Iella Courtelyou.
		W. S. Wilson, S. T. May, C. Jay Boyington, Hilda G. Lundeen, Avis Wescott.

TEACHERS NORMAL INSTITUTE—ABSTRACT [E]—CONTINUED.

Counties.	Conductors.	Instructors.
Madison	T. H. Stone.....	Adam Pickett, O. E. Smith, W. L. Porter, L. D. Salisbury, Alice Wilson.
Mahaska	J. P. Dodds	Mrs. A. P. Tacker, Dr. Wm. A. Radebaugh, Amy Arey, L. O. Rusmiser, A. H. Sigelow, S. M. Hadley, J. M. Stoke, L. F. Bennett, Arthur Latum.
Marion.....	W. H. Lucas.....	George S. Dick, W. C. Farmer, S. G. Richards, William Solomon, A. N. Palmer.
Marshall	Mary E. Hostetler	Harriet Garton, Wm. Radebaugh, Mrs. Alma G. White, Wm. I. Crane,
Mills	W. M. Moore	O. P. Stewart, J. L. Conger, L. Barker, J. R. Bayley, Mabel Smith, F. O. Ensign.
Mitchell	J. A. Lapham.....	Geo. H. Sawyer, Sarah E. Sprague, Emma O. Moulton, M. R. Oiegaard, Kathryne Gray, Maggie Lebin, A. Fullerton, G. Weaver, M. Clyde, A. N. Palmer.
Monona	F. E. Lark.....	Ira W. Howerth, Mande Summers, R. O. Barrett, J. R. Bayley.
Monroe	R. B. Spencer.....	H. C. Hollingsworth, G. W. Walters, Wm. Solomon, W. F. Chevalier, Maisy Schreiner, M. Monte Porter.
Montgomery..	Mabel G. Hanna..	Geo. S. Dick, S. E. Thomas, E. B. Wickersham, Stella Woodford, Nellie Barton.
Muscatine	L. G. Focht	B. W. Leverich, Emma Luse, Linnie Harris, Madge Babbitt, Fred E. Bolton, Lillian Bridgeford.
O'Brien	Nellie Jones.....	W. H. Bader, W. N. Clifford, O. M. Elliott, S. H. Bantley, Miss Emma O. Moulton, Mrs. Ella Ford Miller.
Osceola	J. P. McKinley....	W. N. Clifford, L. B. Parsons, Ira W. Howerth, Blanch Gowdy, S. H. Bantley.
Page	Geo. H. Colbert....	J. E. Cameron, F. M. Fultz, Lura Phillips, W. E. Salisbury, H. E. Wheeler.
Palo Alto	Anna E. Odland....	H. A. Welty, E. O. Meredith, K. B. Stein, O. B. Lowe, A. H. Avery, Lillian Patton, Blanch Gowdy.
Plymouth....	I. O. Hise	D. M. Kelley, L. H. Wright, I. J. McDuffie, Nettie Snidow
Pocahontas...	U. S. Vance	F. L. Cassidy, J. J. Rae, W. A. Furr, Elizabeth Hughes, A. N. Palmer.
Polk	Z. T. Thornburg..	Adda Blakeslee, M. L. Bartlett, W. F. Barr, W. O. Hiddell, O. H. Longwell, W. N. Clifford, O. W. Lyon, Alice Hopper.
Pettawat'mie.	O. J. McManus....	E. B. Andrews, A. R. Crook, F. O. Eastman, Isaac Loos, I. W. Howerth, S. L. Thomas, M. E. Crozier, H. E. Colby, F. O. Ensign, W. M. Clifford, M. O. Porterfield, N. Crumps, B. B. Rogers.
Poweshiek....	P. A. McMillan	O. A. Thornburg, E. Healy, Evangeline I. Robinson, Grace Farrell, Wm. Solomon, O. M. Douglass, A. E. Winship, J. Cameron.
Ringgold.....	Lora L. Richardson	W. F. Barr, J. W. Wilkerson, W. L. Barrett, Lula Miles, J. D. Cherryholme, Eva Kendall, Grace Munsinger.
Sac	A. T. Hukill.....	O. F. Garrett, Elizabeth Platt, Eugenia Kimball, John R. Blacks, G. W. Lee.
Scott	J. H. Jacobs	Ernst Otto, W. W. Stetson, W. O. Wilcox, J. R. Angell.
Shelby.....	G. A. Luxford....	W. O. Wilcox, Mande Summers, O. R. Lowe, O. W. Herr, J. H. Seymour, Allen Peterson.
Sioux	A. V. Storm	S. T. May, Hattie Moore-Mitchell, S. W. Mounts, E. P. Crocker, R. M. Lampman.
Story	I. O. Welty	H. A. Welty, Mrs. L. B. Carlisle, A. B. Alderman, Mrs. Mae Anderson, R. B. Cobb.
Tama	O. E. Brown.....	Hattie Moore-Mitchell, E. J. Heenshel, A. E. Parsons, E. O. Fisk, John E. Cameron, Arthur McMurray.
Taylor	H. S. Ash	Frank E. Howard, E. E. Kuhn, F. O. Belzer, Jessie M. Himes, E. R. Sanford, J. B. Dunham, Ida Ash, L. C. Rusmiser.
Union.....	Frank M. Abbott..	Ira W. Howerth, Hattie M. Mitchell, O. E. French, Lulu L. Spurgeon, O. E. Klingaman.

TEACHERS NORMAL INSTITUTE—ABSTRACT [E]—CONTINUED.

Counties.	Conductors.	Instructors.
Van Buren....	A. L. Heminger ...	David Williams, Arthur T. B. Owen, Anna L. Werts
Wapello	Emma S. Nye.....	A P. Chevalier, W. H. Clifford,
Warren	J. W. Radebaugh..	O Britton, Nanna P. Colgrove,
Washington ..	Cora E. Porter....	R own, Fred L. Moore-Mitch- almer,
Wayne.....	L. Maude Elmore..	W O. Moulton, Adalt.
Webster	A. L. Brown.....	J. Barrett, Ger-
Winnebago ..	L. O. Brown.....	S Heald, W. H. MacGregor.
Winnebuck ..	B. J. Hook.....	H. Julia Breck- E. O. Johnson,
Woodbury....	E. A. Brown.....	O A Russell, Mrs. Ida Reynolds, H. G. Thomas, R. M. Van Horns, Joyce Watson, J. G. Hebson, Helen I. Loveland, P. M. McDowell, John L. Griffith,
Worth	O. M. Gunderson ..	H, A. Dwelle, O. P. Colgrove, Jennie Hallengby, Grace Whitcomb, A. N. Palmer.
Wright.....	Angus Mac Donald	J. G. Grundy, E. W. Fellows, Elizabeth Bain, Lena Phillips, Jennie Wolcott, Stella MacDonald, John E. Cameron.

XX

1

* Included in Clinton. Population of Clinton 22,766
 † Included in Des Moines. Population of Des Moines 75,626.

GRADED SCHOOL STATISTICS

CITIES AND TOWNS OF LESS THAN 1,500 POPULATION. REPORTED BY
CITY SUPERINTENDENTS OR PRINCIPALS.

							High	Non-read-	Assist-		
							school	ing pupils	ant		
							Enrollment.	and tai-	teach-		
							Graduates	tion.	ers.		
							Number.	Amount	Number.		
								received.	Average		
									monthly		
									salary.		
Ackley.....	1441	W. H. Lancelot	19	473	890	10	8	8	2.83	10	\$42.01
Adair.....	961	Will J. Gastell.....	19	289	273	15	7	23	813.50	7	47.10
Adel.....	1339	J. W. Graham.....	19	416	277	15	10	33	422.75	10	45.00
Afton.....	1084	O. E. Klugman.....	12	810	.....	15	4	39	250.50	8	41.50
Agency.....	340	C. F. Goltz.....	12	243	200	12	8	32	91.00	8	42.00
Ainsworth.....	431	Raymond Dix.....	11	131	183	10	11	24	208.75	3	45.00
Akron.....	135	O. J. Smith.....	13	418	209	14	6	14	147.00	6	45.84
Albert City.....	202	Irane A. Lewis.....	8	59	49	15	1	1	2.00	1	40.00
Albion.....	434	J. H. Dutton.....	11	214	201	15	7	12	97.75	5	47.00
Alden.....	775	Louise V. Taylor.....	12	367	234	18	9	14	497.00	6	41.94
Allerton.....	409	J. F. Holiday.....	14	244	810	16	37	40	1,008.50	6	59.17
Allison.....	513	E. Waters.....	12	182	159	15	6	6	198.50	4	37.50
Alta.....	46	Willis J. Bell.....	12	392	219	14	19	19	178.40	6	43.83
Alton.....	1144	F. E. Faller.....	12	460	173	17	5	5	.....	4	45.00
Altoona.....	501	W. H. Beal.....	19	124	124	13	8	13	91.94	3	42.50
Alvord.....	271	Lilly I. Laughlin.....	9	113	108	.....	.....	.....	.....	.....	.....
Andrew.....	110	Jas. Oelander.....	10	91	154	14	2	21	120.00	2	55.00
Anda.....	973	W. H. Oherock.....	12	378	267	14	7	21	247.43	8	46.53
Aakney.....	931	O. Is. McCrelght.....	10	114	115	13	1	1	192.50	2	42.50
Anthony.....	604	Paul J. Scarborough.....	12	212	167	17	5	24	224.50	5	47.50
Applog on.....	441	A. O. Vosker.....	11	144	118	6	2	10	117.00	4	43.75
Arcadia.....	442	J. M. Williams.....	11	243	74	14	8	8	32.67	2	45.00
Arington.....	40	Jay L. Rawson.....	12	275	241	13	11	19	254.50	4	55.00
Armstrong.....	714	A. R. Harrave.....	11	377	279	15	8	14	130.00	6	47.50
Arnolds' Park.....	220	H. W. Herrick.....	9	73	63	.....	.....	2	.....	1	45.00
Arthur.....	42	.....	.....	93	102	.....	.....	.....	.....	2	.....
Ashton.....	534	J. L. Shaver.....	11	241	73	19	10	5	78.00	3	45.00
Auburn.....	114	Wm. Weidt.....	10	145	140	13	8	8	83.51	3	40.00
Aurelia.....	614	Jas. D. Gurtis.....	11	210	153	12	12	6	84.50	6	45.00
Aurora.....	114	Lucy B. Francis.....	10	120	101	14	5	10	81.83	2	57.50
Ayrshire.....	63	Della Gregg.....	10	133	106	11	5	5	.....	2	40.00
Babley.....	235	E. E. Franklin.....	11	137	110	18	5	25	245.00	8	45.00
Baldwin.....	33	O. S. Welch.....	10	119	119	19	3	9	74.00	8	35.00
Bancroft.....	444	S. J. Bacon.....	11	407	146	17	15	.....	.....	5	45.20
Baraboo.....	15	J. P. Flynn.....	8	43	46	.....	.....	10	292.00	1	35.00
Barnes.....	278	J. H. Anderson.....	12	147	91	12	12	12	.....	9	55.00
Batavia.....	533	W. C. Kennedy.....	11	171	132	10	4	11	90.00	8	34.00
Battle Creek.....	541	W. B. Hanson.....	12	193	160	15	7	20	572.75	5	47.00
Baxter.....	520	W. E. Rorabaugh.....	11	168	157	23	1	.....	.....	8	40.12
Bayard.....	425	F. J. Maatz.....	12	201	135	10	1	20	104.50	4	40.00
Beacon.....	673	J. P. McMurray.....	10	311	170	30	10	10	50.77	4	36.23
Beaman.....	27	F. E. Stahl.....	10	72	100	14	2	13	97.79	2	40.00
Belmont.....	204	Frank Popham.....	12	343	235	20	12	14	198.93	10	46.50
Bennett.....	251	Alke M. Ries.....	9	67	40	14	1	8	3.75	1	47.50
Birmingham.....	551	F. B. Hill.....	12	130	148	16	4	24	189.61	5	32.00
Blacksburg.....	175	S. A. Galles.....	12	120	78	16	14	.....	62.50	3	45.00
Barstow.....	541	R. A. Palmer.....	12	210	163	15	6	9	125.00	.....	.....
Blanchard.....	453	Richard Zeldner.....	11	128	167	12	6	25	398.43	4	46.50
Blanco.....	810	I. O. Atkinson.....	9	150	97	18	3	3	31.01	2	40.00
Blockton.....	244	Willis Johnson.....	12	308	200	19	2	21	186.75	6	40.00
Bols.....	431	Albert O. Anderson.....	10	277	114	4	.....	.....	.....	2	40.00
Bonaparte.....	964	J. E. Vow.....	10	257	167	10	16	.....	147.97	5	42.00
Boulevard.....	247	Mabel Hoffman.....	9	114	69	.....	.....	.....	6.00	2	40.00
Boyden.....	812	O. G. Ames.....	11	193	96	20	7	11	91.50	3	40.00
Braddyville.....	810	B. F. Westcott.....	10	211	94	15	.....	2	15.00	2	42.00

GRADED SCHOOL STATISTICS—CONTINUED.

Name of corporation.	Population 1906.	Name of superintendent or principal.	Salary of superintendent or principal.	Months in year.										
					Enrollment.	Graduates.	Number.	Amount received.	Number.	Average monthly salary.				
Brandon.	193	E. G. Lockhart.	70	8	5	9	87	72	60	5	1	7.85	1	40.00
Bridgewater.	...	Chas. E. Geesman	10	9	9	9	123	127	102	29	7	74.70	2	35.00
Brighton.	689	J. O. McGlade.	75	9	18	18	240	247	93	7	34	355.19	5	45.00
Brist.	1410	B. W. Hadley.	30	9	18	18	428	368	53	12	17	142.15	12	43.18
Bristow.	848	F. E. Whitney.	40	9	13	13	125	80	11	11	17	189.78	8	38.84
Brooklyn.	1307	Eugene Henley.	30	9	18	18	481	330	90	17	27	418.50	9	40.00
Brook.	...	Clara Taylor.	30	8	10	10	...	91	34	7	7	77.50	2	30.00
Buckeye.	134	C. P. Manning.	34	9	9	9	58	47	...	6	6	14.50	1	40.00
Buffalo.	837	J. E. Claypool.	30	9	9	9	184	188	...	18	18	74.01	2	37.50
Buffalo Center.	701	F. O. Smith.	30	9	13	13	408	285	56	8	7	30.00	1	38.30
Burt.	522	Albert S. Murray.	15	9	11	11	142	145	14	18	31	308.10	4	47.50
Calamus.	273	H. G. Games.	70	9	5	9	111	81	12	4	8	28.5	2	37.50
Calmar.	949	Gertrude Kaye.	30	9	8	11	316	195	59	7	10	102.52	4	44.00
Cal'donia.	...	A. O. Green.	30	9	10	10	77	58	2	1	1	...	1	35.00
California.	...	Elizabeth Joulthard	30	9	10	10	...	73	...	4	4	...	...	35.00
Camanche.	594	Ella Lukens.	35	9	9	9	174	189	...	6	6	49.50	3	35.00
Cambridge.	845	H. W. Dana.	18	9	13	13	268	247	32	7	11	81.00	3	50.00
Casril.	415	Vironda M. Converse	30	8	13	13	90	107	31	4	24	158.94	2	35.00
Carbon.	312	J. H. Sleekliter.	30	8	10	10	...	158	42	8	8	54.50	2	35.00
Carlisle.	587	H. B. Morgan.	10	9	13	13	243	183	33	8	8	90.00	5	33.00
Carson.	577	Guy P. Linville.	10	9	13	13	257	224	55	8	27	233.75	4	46.00
Cascade.	1314	O. L. Newcum.	30	9	13	13	190	65	...	6	6	...	2	45.00
Cassy.	603	J. O. Huntley.	35	9	13	13	230	210	37	7	12	200.00	5	43.00
Cattana.	407	W. E. Atkinson.	30	9	11	11	143	124	41	3	40	1,370.00	3	43.23
Center Junction.	314	W. W. Crawford.	35	9	10	10	95	78	26	...	8	35.83	2	37.50
Center Point.	813	L. D. Curtis.	70	9	13	13	193	183	41	14	14	153.40	5	35.00
Central City.	607	H. H. Taylor.	30	9	12	12	214	145	52	6	22	454.50	6	35.88
Charlotte.	859	Louis Prunberg.	30	10	9	9	166	120	11	11	3	...	2	40.50
Charter Oak.	785	W. S. Mitchell.	50	9	5	12	332	236	80	3	5	87.50	4	43.00
Chapin.	...	Maud Scott.	48	9	9	9	80	80	...	...	...	90.50	1	40.00
Chelsea.	598	H. M. Tiffany.	40	9	11	11	191	127	24	6	5	69.75	3	36.88
Chardan.	518	Tillman Smith.	75	9	11	11	184	175	59	7	16	197.28	4	41.25
Cincinnati.	1383	P. B. Woods.	30	8	12	12	409	384	81	10	3	120.00	6	34.33
Clarence.	623	T. B. Stewart.	30	9	13	13	155	134	36	4	13	85.00	4	50.00
Clarkville.	957	J. O. Briggs.	30	9	13	13	270	214	44	4	30	285.40	6	41.66
Clearfield.	627	J. D. Cherryholmes.	30	9	13	13	258	264	75	10	51	434.07	6	48.16
Cleghora.	161	Earle S. Smith.	10	9	9	9	82	76	...	4	1	14.00	1	50.00
Clermont.	505	T. E. Heikel.	75	9	12	12	377	161	84	8	9	120.25	1	40.00
Coggon.	508	W. L. Gater.	40	9	10	10	181	164	34	19	24	392.00	3	39.67
Col.	519	E. A. Woodrow.	10	9	11	11	204	200	58	15	25	188.07	4	39.88
Colesburg.	245	O. B. Laraway.	10	9	9	9	94	67	26	...	...	...	...	40.00
College Springs.	549	A. H. Earhart.	10	9	9	9	209	132	28	9	5	34.00	3	41.33
Collins.	...	O. Baker.	30	9	11	11	185	152	17	...	16	94.00	4	51.25
Colo.	...	O. M. Morrison.	30	9	13	13	169	140	32	...	...	119.00	4	51.25
Columbus City.	423	R. B. Hunt.	30	8	13	13	167	110	34	6	11	107.81	4	43.75
Columbus Jet.	1137	M. O. Crouch.	30	9	13	13	404	335	79	17	28	528.44	9	46.83
Conrad.	430	A. M. Gray.	30	9	13	13	194	159	48	7	23	310.40	5	44.00
Conway.	312	W. R. Woodruff.	15	8	5	11	123	...	39	8	11	119.64	3	36.86
Coom Rapids.	1067	O. F. Schell.	30	9	13	13	407	339	50	8	19	299.75	11	43.70
Correctionville.	946	G. E. Thomas.	30	9	13	13	501	376	53	5	19	103.00	9	41.27
Corwith.	521	J. B. Bagge.	10	9	13	13	176	201	41	4	10	153.35	3	45.87
Crawfordville.	326	Albert Graham.	...	9	12	12	125	144	22	...	14	390.78	3	43.33
Crownwell.	213	Alfred Peterson.	...	9	9	9	11	96	...	6	...	...	1	40.00
Cumberland.	617	Frank Lindeman.	...	9	11	11	342	193	47	5	...	...	...	35.00
Cushing.	235	Nettie A. Wells.	...	9	11	11	96	96	31	...	13	130.27	4	49.06
Dakota City.	387	L. B. Bravinder.	...	9	10	10	196	118	32	...	9	...	...	...
Dallas Center.	741	W. H. Gemmill.	...	9	13	13	301	201	77	6	34	330.00	8	45.91
Daubery.	633	W. H. Stein.	...	9	12	12	441	311	4	...	8	...	...	48.11
Devis City.	533	J. W. Long.	...	8	11	11	248	208	51	12	11	245.00	5	36.00

GRADED SCHOOL STATISTICS—CONTINUED.

GRADED SCHOOL STATISTICS—CONTINUED

Name of corporation.	Population 1906.	Name of superintendent or principal.	Salary of superintendent or principal.	Months in year.	Years in course.	Enumeration September 1904.	Enrollment year 1904-1905.	Average attendance year 1904-1905.	High school.		Non-resident pupils and tuition.	Assistant teachers.	
									Enrollment	Graduates.		Number.	Average monthly salary.
Ft. Atkinson.....	283	W. A. Daakam.....			9	182	84					1	30.00
Fraser.....	124	J. R. Curry.....			9	854	285					5	37.60
Fredericksburg.....	490	F. A. Wildman.....			10	212	129				50.00	3	34.28
Fremont.....	526	has. Young.....			12	175	124				145.00	4	37.50
Galt.....		H. W. Sutter.....			9	81	85				7.50	1	40.00
Galva.....	299	M. L. Renshaw.....			12	194	192				247.00	6	44.10
Garden Grove.....	539	A. L. Lyon.....			12	190	222				216.75	6	43.38
Garden Hill.....		E. Ristgers.....			10		218					5	45.00
Garnaville.....		W. E. Lockridge.....			10	127	94				185.00	2	37.50
Garner.....	1204	W. J. Jerome.....			12	421	349				249.18	9	44.15
Garrison.....	504	Ira J. McGinnity.....			12	202	171					8	43.83
Garwin.....	44	W. A. Pye.....			11	188	123				60.00	9	40.00
Geneva.....	190	C. B. Ashline.....			10	64	55					1	40.00
George.....	443	E. T. Gilman.....			11	148	118				91.75	3	50.00
Germania.....	511	Nellie Gallagher.....			10	174	98					2	42.50
Gibson.....		C. W. Moore.....			10		85					2	37.50
Gilman.....	404	D. A. Thidale.....			11	184	173				310.00	4	47.50
Gilmore City.....	670	L. A. Wilson.....			11	145	241				377.00	5	40.58
Gladbrook.....	844	H. B. Shoemaker.....			12	331	241				232.50	5	45.00
Gidden.....	818	E. D. Gepeon.....			12	266	226				711.00	8	38.18
Goldfield.....	574	O. H. Benson.....			12	255	250				198.00	7	41.29
Goodell.....	245	Carl Williams.....			10	111	102				47.35	2	40.00
Gowrie.....	747	C. E. Covett.....			12	256	206				80.00	8	36.90
Graettinger.....	473	F. H. Dawson.....			10	202	187				27.00	1	40.00
Grand Junction.....	1054	F. R. Amhe.....			12	393	240				238.00	1	48.75
Grand Mound.....	405	Larance Baker.....			9	141	108						37.50
Grand River.....	334	H. L. Conner.....			11	136	168				88.00	1	35.00
Grant.....		Thos. Dunn.....			10		67				97.73	3	48.32
Granville.....	344	R. M. Lampman.....			10	189	21				10.00	1	40.00
Gravity.....	559	W. H. Cash.....			10	161	173				158.50	8	40.88
Gray.....	191	Baile Ancelot.....			10	69	87				113.50	2	46.67
Greely (Ba'h'n't'o).....	416	Anna Loloney.....			14	197	172				30.75	3	40.00
Greeley (Del. Co.).....		W. E. Moss.....			11	130	171				135.00	3	40.00
Greene.....	1224	W. W. Overmyer.....			12	234	250				478.37	6	45.62
Greenfield.....	1445	W. R. Andrews.....			12	414	341				230.00	17	41.82
Grimes.....	255	R. L. Soger.....			10	190	167				2.75	3	40.00
Griswold.....	902	D. C. Nelfert.....			13	252	250				488.15	8	45.88
Grundy Center.....	1378	C. L. Love.....			13	442	395				401.75	12	43.19
Guernsey.....		Wilber A. Service.....			10	73	76				22.50	1	40.00
Guthrie Center.....	1424	O. V. Williams.....			10	432	384				134.50	10	56.01
Hancock.....	288	W. Lyman.....			10	106	99				127.15		
Harcourt.....	23											2	41.25
Hardy.....		Francis Hubbard.....			10	76	49					1	35.00
Harpers Ferry.....	260												
Harris.....	175	G. E. Shaver.....			11		66					1	50.00
Hartley.....	1015	O. M. Odle.....			12	489	349				322.02	10	45.98
Hartwick.....		L. J. White.....			10	57	56					1	35.00
Hastings.....	417	A. E. Tipple.....			12	152	128				15.75	3	42.28
Havelock.....	314	B. H. Culver.....			12	116	87				4.62	3	46.00
Hawkeye.....	625	E. O. Preston.....			12	230	163				40.50	3	35.67
Hayesville.....		Elizabeth Thomas.....			10		50					1	40.00
Hedrick.....	1004	Mary W. Bryant.....			12	309	241				129.20	6	40.00
Henderson.....	207	R. E. Davenport.....			11	90	89					3	36.67
Hesper.....		J. P. Street.....			9	97	87				29.22	2	40.00
Hilldale.....	227	H. P. Mower.....			10	107	96					2	43.75
Holstein.....	504	R. A. Griffin.....			12	343	250				224.00	8	48.12
Hopkinton.....	310	R. G. Metzger.....			11	253	237				9.15	4	41.88
Hornick.....	203	W. E. Shipley.....			11	134	166				239.00	3	40.00

GRADED SCHOOL STATISTICS—CONTINUED.

GRADED SCHOOL STATISTICS—CONTINUED.

GRADED SCHOOL STATISTICS—CONTINUED.

GRADED SCHOOL STATISTICS—CONTINUED.

GRADED SCHOOL STATISTICS—CONTINUED.

GRADED SCHOOL STATISTICS—CONTINUED.

SPECIAL LIBRARY REPORT.

Counties.	Number of volumes in the libraries.	Amount of money	Amount of money	Amount of money	Amount of money	Amount of money	Amount of money
Adair.....	4782	\$ 246.00	\$15.20	487	61	119	8
Adams.....	2406	35.46	24.10	68	49	65	30
Allamakee.....	5854	197.18	22.11	386	119	42	77
Appanoose.....	4166	283.43	40.00	492	27	78	15
Audubon.....	8408	189.54	.....	872	66	.....	.....
Benton.....	18342	885.17	963.27	2539	89	82	36
Black Hawk.....	11164	440.71	633.60	3021	57	55	8
Boone.....	12077	618.84	148.28	636	94	84	47
Bremer.....	8403	138.73	15.31	471	76	81	51
Buchanan.....	6714	307.11	85.85	238	55	77	55
Buena Vista.....	.....	.....	.....	.....	.....	.....	.....
Butler.....	7986	270.50	278.21	760	85	96	88
Calhoun.....	19833	261.24	850.00	1878	109	131	.....
Carroll.....	5074	524.68	61.25	682	43	84	10
Cass.....	8281	155.81	164.03	407	66	67	3
Cedar.....	7694	405.12	15.75	444	60	106	82
Cerro Gordo.....	7274	197.53	20.00	442	94	103	24
Cherokee.....	19460	197.96	82.35	275	128	127	7
Chickasaw.....	5057	147.90	80.25	187	57	28	39
Clarke.....	25.5	174.68	.....	286	82	76	34
Clay.....	8945	202.90	25.00	444	92	12	.....
Clayton.....	9166	676.08	114.04	745	65	137	14
Clinton.....	8327	420.48	924.00	1706	99	182	28
Crawford.....	7851	824.08	24.00	641	69	141	.....
Dallas.....	8153	765.09	76.04	1504	110	114	28
Davis.....	2437	.....	.....	.....	.....	84	62
Decatur.....	3697	81.80	182.84	587	61	69	33
Delaware.....	6635	204.10	.....	547	122	111	11
Des Moines.....	8378	104.16	70.78	584	13	22	35
Dickinson.....	4519	122.23	14.60	273	82	10	1
Dubuque.....	8377	450.00	1165.04	2854	117	65	22
Emmet.....	9887	117.11	785.00	207	76	.....	.....
Fayette.....	11897	197.25	145.23	548	46	87	65
Floyd.....	865	193.72	128.60	555	90	94	10
Franklin.....	8844	259.19	22.56	507	66	102	28
Fremont.....	7902	229.46	69.90	550	112	95	11
Greene.....	5056	205.06	8.50	387	88	120	3
Grundy.....	453	238.73	23.75	306	72	75	43
Guthrie.....	518	554.80	187.00	477	101	110	4
Hamilton.....	5027	278.47	9.80	547	182	107	25
Hancock.....	6124	303.54	187.87	1084	97	137	.....
Hardin.....	7701	249.3	5.04	514	61	76	59
Harrison.....	653	273.64	43.54	642	57	4	17
Henry.....	657	10.85	14.87	410	53	42	63
Howard.....	4879	144.41	114.10	404	85	92	7
Humboldt.....	8730	152.95	248.07	783	64	76	9
Ia.....	7357	.....	.....	.....	85	.....	.....
Iowa.....	10768	297.41	231.46	1902	78	76	46
Jackson.....	408	129.15	.....	61	57	86	20
Jasper.....	6124	148.77	53.82	501	117	142	17
Jefferson.....	327	182.50	79.50	432	52	69	23
Johnson.....	1617	222.69	315.00	1102	81	14	40
Jones.....	10493	205.28	89.63	486	100	70	.....
Keokuk.....	7952	233.55	22.00	760	51	24	100
Kossuth.....	8165	608.75	458.45	2809	107	198	.....

SPECIAL LIBRARY REPORT.

Counties.	Number of volumes in the libraries.	Amount of money expended from district fund, for library books.	Amount expended raised by volun- tary efforts.	Volumes purchased during the year.	No. of rural schools provided with suit- able library cases.	No. of sub-districts provided with libraries	No. of independent districts provided with libraries.
Lee.	6458	258.17	7.37	479	63	46	31
Linn.	13521	474.50	54.60	743	124	105	65
Louisa.	6187	195.91	68.78	832	50	58	15
Lucas.	4193	246.28	95.48	799	42	39	57
Lyon.	6792	398.70	.....	810	46	71	10
Madison.	4013	829.23	50.00	453	90	73	17
Mahaska.	6449	258.72	116.65	618	40	62	59
Marion.	6822	892.53	96.79	725	12	22	100
Marshall.	8481	682.08	125.09	712	65	74	37
Mills.	12426	157.42	34.84	401	70	1	55
Mitchell.	1772	169.04	.....	834	8	51	38
Monona.	3703	129.71	6.00	354	12	76	4
Monroe.	819	171.98	79.00	446	25	72	80
Montgomery.	6442	71.00	.....	18	60	78	18
Muscatine.	4231	59.14	20.00	164	.....	.....	.....
O'Brien.	17777	175.56	158.60	455	183	181	.....
Osceola.	11528	90.01	260.45	988	86	91	.....
Page.	6338	860.02	117.96	855	82	85	84
Palo Alto.	24675	282.51	.....	6575	138	133	.....
Plymouth.	8715	405.82	78.00	814	89	119	1
Pocahontas.	13199	104.07	238.79	676	84	124	7
Polk.	9087	535.90	87.95	1177	62	77	20
Pottawattamie.	18188	673.98	132.00	1673	222	214	15
Poweshiek.	6099	464.18	22.52	692	40	114	15
Ringgold.	4418	201.83	20.00	328	61	78	29
Sac.	10207	225.54	680.16	1690	120	132	.....
Scott.	13949	505.20	.....	1012	69	78	23
Shell.	9556	529.06	400.00	.....	135	198	.....
Sioux.	11226	265.25	18.50	545	105	157	2
Stor.	6608	595.52	.....	350	114	114	15
Tama.	9,061	\$ 831.06	\$ 56.25	832	80	95	78
Taylor.	8,666	135.36	72.75	370	86	79	25
Union.	5,717	105.16	.....	230	29	106	18
Van Buren.	3,859	137.78	63.21	321	26	62	34
Wapello.	29,067	297.83	232.18	623	70	55	88
Warren.	6,631	312.00	80.50	620	80	52	80
Washington.	13,120	256.73	112.45	1,842	90	50	72
Wayne.	5,702	891.89	242.67	974	46	92	22
Webster.	15,650	370.40	228.02	838	117	136	34
Winnebago.	4,636	150.61	44.80	313	41	77	5
Winneshek.	8,632	824.14	21.15	839	90	98	32
Woodbury.	9,917	876.52	339.13	527	189	84	9
Worth.	4,353	481.09	182.25	1,224	75	87	.....
Wright.	12,036	151.63	186.00	990	126	123	8
al.	779,984	\$27,653.03	\$18,622.92	73,791	7,524	8,215	2,622

Conditions and Needs

== of ==

Iowa Rural Schools.

-
-
1. Country School Statistics.
 2. The Country School Problem.
 3. Present Status of Consolidation.
 4. One Phase of the Teacher Problem.
 5. School Buildings and Grounds.
-
-

JOHN F. RIGGS,

Superintendent of Public Instruction.

1905.

DES MOINES:
B. MURPHY, STATE PRINTER.

INTRODUCTION.

It was our purpose to secure accurate and complete reports from every rural school in Iowa, showing the enrollment, average daily attendance, length of the school year and salaries of teachers; but many secretaries found it impossible to furnish the data asked for, but 10,019 schools reporting out of a total of 12,521. By reference to Table No. I the number of rural schools maintained in each county may be seen, as also the number of schools reporting.

While the statistics are incomplete, they are sufficiently full to show conditions as they actually exist in this State. In Tables III, IV and V, showing average daily attendance, fractions of less than one-half are omitted, while fractions of one-half or over are counted as units.

This report is issued in the hope of awakening greater public interest in the rural schools, to the end that country children may be gathered in better schoolhouses, trained by better teachers and have that training extend through a longer school year without the interruptions now so common in the frequent change of teachers.

TABLE No. I.

Black Hawk.....	140	105	2	4	8	69	5	20
Buena Vista.....	128	68	2	17	2	21	5	26
Bremer.....	97	72	11	4	18	22	5	5
Cass.....	140	118	1	1	2	54	15	42
Clayton.....	167	161	12	1	16	77	12	20
Carroll.....	184	68	2	1	5	24	0	29
Chickasaw.....	109	51	1	1	10	28	5	6
Crawford.....	168	77	1	1	1	51	5	19
Calhoun.....	188	180	8	5	8	101	2	16
Cerro Gordo.....	184	117	4	1	9	67	15	18
Clay.....	128	118	1	1	2	60	0	66
Clinton.....	157	157	1	1	1	68	7	84
Cnerokee.....	182	117	2	1	1	65	10	15
Clarke.....	102	65	4	8	23	45	4	4
Cedar.....	188	120	8	1	13	89	10	8
Dallas.....	188	100	1	8	1	78	6	11
Dickinson.....	72	24	1	1	4	14	1	3
Davis.....	96	84	47	2	19	10	1	1
Des Moines.....	84	62	2	8	6	80	9	7
Decatur.....	111	66	17	1	8	26	1	1
Delaware.....	180	96	1	1	4	50	10	24
Dubuque.....	124	115	2	1	2	39	2	60
Emmet.....	74	67	4	11	1	44	1	6
Fayette.....	175	128	5	14	15	54	18	17
Floyd.....	118	111	1	3	20	69	10	8
Franklin.....	187	117	8	2	4	62	11	5
Fremont.....	117	100	8	12	2	24	11	50
Greene.....	186	102	1	1	2	60	20	2
Grundy.....	119	98	1	8	6	50	10	29
Guthrie.....	142	125	2	1	5	98	6	17
Hamilton.....	183	125	3	20	19	68	8	5
Harrison.....	145	66	1	1	1	41	1	24
Hancock.....	122	108	2	24	1	52	5	25
Hardin.....	120	76	1	13	9	44	5	4
Henry.....	97	87	2	10	13	47	12	1
Howard.....	98	96	1	1	3	66	5	18
Humboldt.....	108	99	1	18	15	50	6	15
Ida.....	99	98	1	1	1	71	1	27
Iowa.....	165	121	5	6	8	74	9	16
Jackson.....	126	77	1	2	1	46	6	23
Jasper.....	177	120	1	4	6	66	37	5
Jefferson.....	92	91	2	15	30	31	4	1

TABLE NO. I—CONTINUED.

TABLE No. II—CONTINUED.

CONTINUED.

Number of Schools Enrolling Winter Term.														Number of Schools Enrolling Spring Term.													
5 or less.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16 to 20.	More than 20.	5 or less.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16 to 20.	More than 20.		
1	2	1	4	6	8	6	7	8	8	9	22	61	1	2	6	4	1	2	2	6	2	5	7	27	48		
1	1	1	5	4	4	6	4	8	4	8	80	48	8	4	8	4	4	8	2	8	7	7	4	8	80	45	
5	1	...	...	5	8	1	6	5	7	2	37	59	1	...	2	...	8	8	4	7	5	5	6	28	37
5	1	8	6	8	12	10	15	14	10	9	68	45	4	6	8	15	11	18	19	17	12	13	8	34	80		
1	...	2	8	...	1	...	2	2	4	8	18	41	8	1	4	...	2	8	4	4	8	2	...	15	28		
8	...	2	2	6	4	4	5	9	8	4	26	64	8	1	4	4	8	4	5	9	7	7	4	26	53		
1	...	1	...	1	4	1	1	8	5	2	16	25	2	1	1	2	1	8	7	1	2	...	8	20	19		
...	1	...	...	...	...	1	1	...	...	1	12	84	...	...	1	2	...	...	1	2	1	2	8	12	28
6	...	1	1	2	1	1	4	6	6	4	26	32	6	1	5	2	1	4	8	5	7	7	7	24	22		
1	1	...	1	1	2	2	2	1	5	8	20	33	1	1	4	...	4	2	2	4	4	6	4	16	23		
...	2	2	...	...	1	1	1	1	1	...	22	62	...	1	4	1	1	2	2	2	2	4	5	21	51
...	2	...	2	...	2	...	1	2	...	6	15	86	1	...	1	2	...	1	3	2	8	4	1	15	30		
2	1	...	1	4	6	2	4	9	8	9	32	47	4	4	8	...	7	6	8	8	8	9	8	80	34		
...	...	8	...	2	...	4	4	4	5	8	19	86	2	...	2	2	4	8	1	2	2	7	8	19	82		
1	3	...	2	5	1	2	4	4	5	4	16	18	1	1	2	2	6	8	1	8	5	4	8	18	14		
1	...	7	8	5	7	8	1	11	8	5	81	46	8	1	8	4	5	7	10	8	5	8	8	29	87		
...	1	1	...	...	1	2	1	2	2	...	11	60	...	...	...	...	2	8	2	8	2	4	...	16	49
2	2	8	1	1	8	2	5	8	6	4	80	34	8	...	4	4	8	7	8	5	7	5	4	13	22		
...	1	...	1	1	2	3	8	1	2	2	16	27	2	1	1	4	1	8	8	8	...	8	6	12	21		
1	...	1	1	1	8	4	8	6	9	8	30	40	2	2	1	5	6	8	6	10	6	18	16	29	20		
...	...	2	...	2	4	4	8	8	8	8	22	21	8	2	2	...	8	1	6	5	5	8	5	14	6		
4	1	1	2	6	1	2	4	8	5	8	35	58	2	2	2	1	8	8	6	8	8	5	2	29	39		
1	1	...	8	8	1	8	1	6	5	6	22	20	8	5	...	2	4	7	6	8	4	7	5	8	15		
2	...	...	4	2	7	9	10	8	2	6	39	46	2	8	4	5	8	7	8	8	9	7	11	81	83
...	1	1	2	5	1	4	6	10	2	17	57	44	3	...	2	8	6	18	9	10	7	10	5	82	24		
...	...	2	...	2	4	4	2	2	2	9	23	79	2	8	...	1	3	8	5	2	8	8	3	21	68		
...	...	8	1	4	8	5	6	5	9	8	38	73	4	1	8	...	6	6	5	13	12	8	7	47	53		
2	8	4	5	1	1	7	6	6	8	7	80	81	5	2	8	2	7	4	9	4	9	6	6	22	25		
1	...	2	4	4	4	4	4	4	6	8	81	84	1	2	...	4	4	5	4	5	8	8	4	21	21		
2	1	1	8	8	2	5	7	11	12	8	32	89	8	8	1	4	4	8	6	5	9	8	11	40	20		
...	...	1	...	1	...	2	1	1	2	2	5	44	...	...	3	...	1	1	2	1	1	2	5	16	36
...	...	1	...	1	1	4	1	4	4	3	16	40	1	...	1	2	9	2	4	2	4	1	9	23	16		
2	...	2	...	3	4	8	8	4	9	9	52	67	1	...	4	8	8	5	8	9	2	10	7	43	55		
...	...	2	1	...	8	8	6	8	6	5	27	38	...	...	1	1	10	4	8	9	11	8	1	23	20
1	1	4	2	1	8	6	2	8	1	11	48	53	6	7	4	5	7	7	6	1	5	9	5	43	30		
1	...	...	1	2	1	1	4	2	4	4	16	35	1	1	2	...	4	1	8	2	5	6	8	14	32
1	2	5	...	2	5	5	8	7	6	8	27	34	5	8	8	10	4	4	5	5	3	4	6	21	29		
...	2	2	8	8	2	2	6	6	4	6	28	43	...	...	2	2	1	2	3	6	8	6	5	22	31
...	...	...	2	2	...	5	2	8	8	1	12	47	2	2	...	...	4	4	1	5	8	5	4	20	43
1	...	...	2	2	2	2	8	1	1	8	23	56	...	1	1	1	1	5	4	4	6	3	2	27	36
2	1	2	1	5	2	7	6	5	8	9	32	47	8	2	5	2	5	5	8	4	9	9	6	38	33		
...	...	...	1	...	...	7	1	1	...	1	18	52	...	...	...	...	1	2	2	2	2	8	4	21	37
2	...	2	5	6	5	8	11	8	10	12	39	52	6	4	5	2	8	9	13	11	7	10	10	34	38		
...	...	...	8	1	1	...	2	2	2	2	20	42	...	1	...	...	4	2	4	5	8	9	5	21	22
1	1	1	1	1	2	8	2	2	1	2	13	62	1	1	3	2	...	3	8	6	8	2	3	19	43		
2	1	2	2	1	4	8	7	6	14	12	27	64	1	4	2	6	5	10	9	8	7	10	11	31	45		
...	...	...	...	2	4	2	...	4	6	5	20	27	...	1	1	3	2	2	6	4	6	5	5	20	23
...	2	8	...	8	8	8	4	6	7	5	32	39	8	2	8	8	5	7	6	8	4	8	6	24	20		
123	90	154	181	271	335	366	437	469	462	521	2,498	8,974	218	171	257	305	391	463	496	542	549	576	549	2,324	2,774		

TABLE No. III.

FALL TERM 1908.

Number of schools having an average daily attendance of:

Andubon	2	1	3	4	4	7	10	8	9	6	8	28	18
Adams	1	1	6	8	5	3	2	7	9	5	4	16	7
Adair	3	1	5	6	9	6	7	10	10	15	8	32	11
Appanoose	1	1	1	1	1	1	8	4	5	4	1	11	20
Allamakee	1	1	1	1	1	1	8	1	1	2	1	8	8
Benton	1	1	7	7	5	12	6	9	9	6	7	10	8
Buchanan	8	3	9	6	6	8	6	11	11	7	8	17	12
Butler	1	5	4	2	6	9	11	11	14	11	8	5	11
Boone	3	4	1	2	3	4	8	7	8	9	6	5	6
Black Hawk	1	8	2	7	6	12	6	10	5	5	5	17	23
Buena Vista	1	3	8	8	6	1	6	5	8	9	7	6	4
Bremer	1	2	8	1	2	8	3	2	4	6	1	4	1
Cass	3	1	6	2	1	3	3	3	3	5	17	7	9
Clayton	2	2	2	4	8	1	6	4	4	4	9	1	17
Carroll	3	2	3	5	6	7	6	8	7	8	1	4	2
Crawford	2	2	2	5	6	9	6	2	9	4	3	5	1
Calhoun	1	3	1	8	8	10	6	12	14	6	12	15	4
Cerro Gordo	1	2	10	12	10	10	8	4	10	4	9	6	6
Clay	2	4	3	4	6	11	8	6	7	8	7	10	6
Clinton	1	2	1	1	4	14	7	18	12	11	5	10	10
Cherokee	1	3	5	7	5	10	10	8	10	7	12	7	6
Chickasaw	1	1	1	1	4	2	4	1	3	3	4	2	2
Clarke	1	3	4	1	5	5	5	6	9	1	1	6	23
Cedar	1	8	8	1	6	2	18	5	18	18	11	6	11
Dallas	1	2	3	3	6	7	3	3	6	3	7	4	21
Dickinson	1	2	4	3	4	1	3	1	1	1	1	1	4
Davis	1	1	2	2	4	1	5	4	1	1	1	5	16
Des Moines	1	1	3	2	4	1	3	2	4	3	4	4	14
Decatur	1	2	1	2	1	2	3	6	2	2	4	3	13
Delaware	1	2	4	3	7	7	10	10	2	8	6	10	8
Dubuque	1	8	4	5	6	4	7	8	4	7	7	4	6
Emmet	1	1	8	1	1	1	1	1	1	2	1	1	2
Fayette	1	1	6	2	5	6	7	7	12	4	4	9	27
Floyd	1	6	8	2	10	9	12	6	10	7	7	2	17
Franklin	1	6	5	10	6	10	7	7	5	9	9	6	9
Fremont	1	1	4	5	7	5	5	3	7	10	2	5	29
Greene	1	6	7	3	5	7	10	8	7	12	5	9	19
Grundy	1	1	2	2	3	8	7	7	6	4	9	2	16
Guthrie	1	8	2	4	1	5	9	6	10	11	13	5	8
Hamilton	1	2	1	6	9	6	16	8	10	6	6	7	27
Hancock	1	1	6	7	3	5	5	9	7	6	7	4	12
Hardin	1	8	5	5	5	7	3	1	5	9	4	7	7
Harrison	1	2	2	2	2	3	3	1	4	5	4	5	21
Henry	1	5	6	6	7	2	4	7	7	4	3	5	16
Howard	2	5	8	5	3	6	1	5	5	6	8	3	21
Humboldt	2	2	4	3	3	5	5	5	9	6	4	9	11
Ida	1	3	4	6	3	10	5	12	8	8	7	19	7
Iowa	2	1	6	1	6	4	10	11	5	14	3	6	24
Jackson	1	3	3	5	6	5	4	6	2	8	4	7	11
Jasper	1	1	2	3	3	3	12	6	6	6	6	6	27
Jefferson	1	2	2	3	3	4	3	3	5	13	2	4	21

TABLE No. III—CONTINUED.

FALL TERM, 1904.

Number of schools having an average daily attendance of:

TABLE No. IV.

WINTER TERM 1903-04.

Number of schools having an average daily attendance of:

County.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16 to 20	More than 20
Audubon.....				2	3	3	1	0	1	4	4	4	3	10	11	22	22
Adams.....			1			4	4	5	3	4	7	5	3	6	12	15	15
Adair.....	1	2		4	4	4	4	5	5	6	11	6	10	27	18	38	4
Appanoose.....				1	2	2			2	6	9	6	3	7	18	38	4
Ashtabula.....			1	2	1		3		0	1	3	3	3	7			
Benton.....		2	2	5	5	5	7	0	7	8	9	11	11	5	34	14	14
Buchanan.....		1	1	2	3	3	9	5	9	7	10	10	8	10	26	15	15
Butler.....		2	2	3	3	3	9	11	11	6	11	11	5	16	26	15	15
Boone.....		1	2	4	3	3	6	2	6	12	11	12	9	7	40	21	21
Black Hawk.....			2	2	4	4	8	11	12	12	18	11	7	6	35	12	12
Buena Vista.....		1	1	3	3	3	2	4	3	4	11	6	7	3	5	4	4
Bremer.....		1	3	2	3	2	5	5	6	3	5	5	3	4	11	5	5
Cass.....		1	2	4	4	2	5	4	4	5	13	4	5	13	21	21	21
Clayton.....		2	5	5	5	5	8	2	7	6	6	9	9	10	31	33	33
Carroll.....	1	2	2	3	2	2	9	5	6	6	8	3	3	3	10	8	8
Crawford.....	1	2	3	3	3	3	3	3	3	3	6	6	3	3	13	9	9
Calhoun.....			3	3	3	3	6	6	11	3	10	12	3	3	20	12	12
Cerro Gordo.....	1	1	7	2	6	11	11	0	7	3	11	5	5	6	20	7	7
Clay.....		3	5	3	11	10	7	9	6	6	7	7	9	3	20	12	12
Clinton.....	1		2	3	3	10	3	10	15	3	13	3	12	13	34	16	16
Cherokee.....			1	3	4	5	11	15	3	15	4	4	10	9	27	5	5
Chickasaw.....			1	1	1	2		4	4	3	3	7	3	1	14	6	6
Clarke.....			2	2	3	5	5	5	2	7	5	6	3	3	17	16	16
Cedar.....			2	4	3	5	7	5	11	9	10	12	6	10	31	7	7
Dallas.....			2	1	3	3	0	7	6	5	5	7	7	3	22	11	11
Dickinson.....		1	1	1	4	3	5	6	4	2	3	4	1	3	7	2	2
Davis.....			2	1	3	3	3	3	3	3	3	4	2	2	26	23	23
Des Moines.....		1	1	2	3	1	1	3	1	5	2	2	3	4	19	14	14
Decatur.....			2	3	2	2	3	9	4	4	6	2	3	3	22	18	18
Delaware.....			4	3	3	4	3	6	2	5	11	3	10	5	21	7	7
Dubuque.....	1	2	5	1	3	3	6	4	2	4	1	4	3	2	7	7	7
Emmet.....	1	2	3	1	3	3	4	5	3	3	3	4	2	0	9	3	3
Fayette.....					3	5	10	3	12	10	7	7	11	7	6	16	16
Floyd.....	1		5	4	3	4	5	9	10	9	5	5	12	5	24	4	4
Franklin.....		2	2	2	3	4	10	9	10	10	9	5	6	2	24	6	6
Fremont.....		3		2	2	12	3	3	3	3	3	13	2	3	29	7	7
Greene.....			3	3	3	4	3	7	13	9	10	4	11	7	17	13	13
Grundy.....	1		3	4	4	3	5	4	7	10	11	6	3	2	26	13	13
Guthrie.....		2	2	3	3	3	3	2	15	10	11	7	11	11	31	13	13
Hamilton.....		1	1		1	4	7	3	9	12	6	10	6	9	36	23	23
Hancock.....		1	1	2	2	3	3	3	7	7	9	3	3	3	22	10	10
Hardin.....		1	2	4	3	3	4	7	4	6	5	3	3	3	19	10	10
Harrison.....			1	4	1	4	5	3	3	3	5	2	3	1	20	11	11
Henry.....		1	2		11	5	5	7	5	6	4	3	3	3	15	17	17
Howard.....		2	3	3	2	7	5	7	5	15	5	5	5	6	23	9	9
Humboldt.....		1	4	2	3	3	4	9	4	6	10	5	2	9	30	1	1
Iowa.....					1	1	5	2	12	5	13	3	6	2	20	6	6
Jackson.....			3	3	3	6	6	4	9	14	10	9	6	11	26	13	13
Jasper.....	1	1	2	1	4	3	7	2	7	2	2	2	3	3	12	15	15
Jasper.....	1		2	3	3	6	7	11	7	14	6	4	5	12	35	10	10

TABLE No. IV—CONTINUED.

WINTER TERM 1903-1904.

Number of schools having an average daily attendance of:

County.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16 to 20	More than 20
Jefferson					1	2	4	1	2	7	9	4	4	8	4	17	25
Johnson			1	3	8	8	5	6	11	4	9	6	11	11	7	22	81
Jones				3	4	5	5	8	4	9	11	6	6	2	6	32	17
Keokuk			2	2	4	2	1	7	5	6	9	7	5	5	12	32	24
Kossuth		1	5	8	7	10	21	18	20	26	11	14	15	12	4	24	10
Lee			4	1	1	2	4	4	4	2	6	2	4	5	5	14	19
Linn				4	5	1	2	4	9	5	8	7	4	9	8	28	87
Louis			1	1	1	3	3	5	6	2	5	8	5	9	7	10	7
Lucas						1	1			2	1	3	2	4	1	20	16
Lyon			2	8	2	1	7	3	4	8	6	9	8	5	3	22	9
Madison		1		1		1		8	8	5	6	4	5	5	2	25	12
Mahaska				2	1	1	4	2	2	3	4	7	8	7	5	22	18
Marion				2			5	3	1	5	5	3	6	7	5	11	17
Marshall				2	2	2	9	12	5	9	9	8	7	10	4	24	21
Mills					1	2	5	5	6	9	3	6	8	2	3	14	21
Mitchell			1	1	3	2	7	2	2	7	4	7	8	8	2	14	5
Monona			2	1	10	14	8	6	8	10	5	9	8	7	6	25	3
Monroe				1	1	1	3	4	1		4		5	6	3	27	26
Montgomery			2	2	5	3		1	3	10	5	15	6	8	4	14	10
Muscatine						1	1	2	3	6	6		8	6	5	12	17
O'Brien	1			1		1	2	5	9	7	14	8	14	14	6	22	9
Osceola				2	1		2	7	3	5	7	9	2	5	4	12	7
Page			2	1	3	3	3	7	6	7	1	7	9	9	7	31	17
Palo Alto			1	4	1	3	3	13	7	10	6	7	8	4	2	18	7
Plymouth	1	1	3	2	5	3	2	12	3	16	5	9	10	8	9	22	5
Pocahontas					6	6	3	3	13	6	7	13	11	10	11	19	13
Polk					4	3	7	7	6	3	3	5	5	11	9	25	37
Pottawattamie				1	4	4	6	5	14	15	13	7	13	5	3	42	23
Poweshiek			3	3	3	3	4	6	7	6	9	11	5	7	5	24	6
Ringgold		1		4	3	1	5	4	12	6	6	9	1	4	3	31	3
Sac			2	1	3	7	6	12	6	9	13	11	6	4	9	23	13
Scott					1	3	1	2	1	1		4	3	3	1	13	23
Shelby				1		4	4	3	3	3		5	13	7	4	21	9
Sioux			2	1	5	5	5	6	9	13	3	11	12	10	11	33	15
Story					2	2	4	6	7	14	6	7	5	6	3	24	13
Tama			2	1	5	3	4	3	7	3	12	13	11	6	12	32	23
Taylor				1		1	3	5	3	5	4	4	3	7	6	20	10
Union				3	5	3	1	3	5	5	9	9	9	5	5	30	13
Van Buren			1	1	1	1	3	6	3	6	5	7	7	9	3	31	23
Wapello					1	3	4	3	4	3	2	6	3	3	6	10	23
Warren				1		4	1		3	6	3	4	3	6	1	23	34
Washington			2	1	2	3	7	4	5	11	7	12	12	9	9	35	13
Wayne						2	2	6	5	5	6	5	3	1	6	20	13
Webster		1	7	2	3	4	14	15	14	13	13	16	7	7	14	16	21
Winnebago			1			2	3	2	7	3	4	3	7	3	9	15	4
Winnebush		1			4	2	2	5	4	5	4	7	7	4	6	22	56
Woodbury		1		2	6	10	9	13	11	9	13	10	11	3	10	29	19
Worth				1		2		5	7	3	6	3	10	6	6	9	13
Wright		1			2	5	11	9	5	3	2	9	9	7	5	23	14
Total	2	17	31	166	233	334	445	554	603	694	647	746	661	736	621	2,160	1,457

TABLE No. V.

SPRING TERM, 1904.

Number of schools having an average daily attendance of:

COUNTRY SCHOOL STATISTICS.

107

TABLE No. V—CONTINUED.

SPRING TERM, 1904.

Number of schools having an average daily attendance of:

														15	16 to 20	More than 20
Johnson			2	7	8	11	8	5	11	5	7	12	4	58	19	
Jones	1	1	3	4	6	4	7	10	5	11	8	5	8	29	22	
Kaskak			1	4	4	3	5	7	4	3	6	7	3	26	19	
Kossuth	4	2	4	11	19	28	28	17	10	10	16	15	9	20	9	
Lee		1	2	4	2	4	4	...	5	4	6	5	4	8	13	
Linn	1	1	1	2	4	6	6	3	13	9	7	5	3	29	25	
Louis		1	2	2	2	4	1	5	4	7	5	5	7	12	11	
Lucas			1	...	...	2	4	2	...	4	5	1	4	17	7
Lyon	1	3	4	3	5	7	10	5	3	6	6	5	7	15	4	
Madison	1	1	1	1	3	3	...	5	4	3	3	6	5	19	11	
Mahaaka			1	6	3	1	3	1	3	4	5	5	7	22	21	
Marion	1		...	2	1	2	2	7	3	4	6	3	4	13	19	
Marshall	1		1	9	3	5	10	3	15	7	11	11	5	23	10	
Mills			2	5	2	4	6	2	4	5	3	5	5	16	12	
Mitchell			1	1	3	4	4	4	4	7	3	7	2	15	8	
Monona			...	5	3	3	13	15	10	7	7	7	6	21	6	
Monroe			...	1	4	2	2	1	3	3	4	2	3	23	24	
Montgomery		1	2	2	4	11	6	14	11	5	3	2	3	12	4	
Muscatine			...	3	2	1	5	1	3	3	5	5	...	11	13	
O'Brien	2	...	3	3	7	9	11	12	7	12	13	9	9	21	3	
Oceola			4	2	3	4	10	6	6	5	6	3	3	6	4	
Page		1	1	6	6	1	10	9	3	10	5	5	5	27	13	
Palo Alto	2	1	2	4	6	9	14	13	12	3	3	2	4	10	7	
Plymouth	1	5	3	6	7	13	13	6	16	11	12	3	5	19	1	
Pocahontas		1	...	4	5	7	11	11	10	12	9	6	6	23	9	
Polk		1	2	3	7	1	10	6	...	6	15	7	14	23	30	
Pottawattamie	1	1	4	6	6	5	7	20	12	17	13	12	9	26	15	
Poweshiek	1	...	2	4	6	3	6	12	3	5	6	5	6	23	11	
Ringgold			2	5	3	2	7	9	7	6	9	3	6	15	7	
Sac	1	1	1	3	6	10	6	10	9	3	11	13	12	21	5	
Scott			...	3	1	1	...	5	4	5	2	4	6	17	16	
Shelby			...	3	1	4	6	4	6	5	7	3	7	11	6	
Sioux	1		7	1	12	6	9	9	9	15	13	16	13	35	9	
Story			...	3	3	3	...	7	3	3	9	9	5	19	3	
Tama		3	3	7	5	10	7	3	7	9	5	12	9	23	19	
Taylor		1	...	3	2	5	3	1	2	5	10	4	5	23	6	
Union		3	5	7	5	5	4	7	3	5	7	6	6	16	12	
Van Buren			...	...	2	4	2	3	6	5	6	3	6	20	16
Wapello	1	1	2	2	2	1	...	4	6	6	5	5	5	11	33	
Warren			...	1	2	7	4	7	5	3	4	7	2	19	25	
Washington		1	1	3	7	4	6	5	4	7	3	11	10	37	9	
Wayne			...	...	2	...	5	2	5	7	9	3	7	20	...
Webster	1	3	5	6	3	9	13	15	9	9	7	12	10	23	13	
Winneshaw			...	2	3	7	4	5	3	5	3	9	2	13	4	
Winneshiek			...	3	6	5	5	5	5	7	3	4	5	23	16	
Woodbury		2	5	7	14	12	14	9	7	13	15	9	4	23	10	
Worth			...	1	3	3	3	12	4	6	3	3	3	13	14	
Wright		1	1	5	5	4	11	4	11	11	9	7	6	24	9	
Total	9	29	91	170	313	474	591	645	707	705	693	703	600	600	535	1,917
																1,114

TABLE

Monthly Salaries Paid Rural Teachers for the School Year 1908-09,

=

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

TABLE

Monthly Salaries Paid Rural Teachers for the School Year 1903-04.

*In addition to these footings there were three fall terms and ten spring terms taught

No. VI—CONTINUED.

Showing the Number of Schools Taught at the Salaries Named.

More than \$30 Less than \$35.			\$35			More than \$35 Less than \$40.			\$40.			More than \$40 Less than \$45.			\$45.			More th'n 45 Less th'n 50			\$50.			More than \$50.		
Fall term.	Winter term.	Spring term.	Fall term.	Winter term.	Spring term.	Fall term.	Winter term.	Spring term.	Fall term.	Winter term.	Spring term.	Fall term.	Winter term.	Spring term.	Fall term.	Winter term.	Spring term.	Fall term.	Winter term.	Spring term.	Fall term.	Winter term.	Spring term.	Fall term.	Winter term.	Spring term.
...	10	2	2	34	1	...	1	11	...	22	1	1	...	1
3	90	7	1	35	2	...	17	...	...	5	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...
25	21	26	2	41	1	...	27	1	...	6	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
5	27	3	23	23	13	6	8	8	5	26	4	...	1	...	1	2	1	...	...	...	...	...	...	...	...
81	101	98	26	38	40	9	17	26	6	6	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	8	1	4	11	6	1	1	1	8	4	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...
17	33	16	6	55	12	2	18	1	2	17	2	1	1	1	...	...	...	1	1	1	...	...	2	2	2
...	6	11	6	42	7	...	6	...	1	17	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	6	3	6	28	5	...	2	...	1	8	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20	32	23	24	29	34	9	9	7	14	14	15	...	...	...	...	...	...	...	...	...	1	1	1	...	...
6	17	4	8	49	1	1	3	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	4	5	15	63	15	8	4	4	6	23	8	...	...	...	...	2	...	...	...	...	...	...	2	...	...
12	22	4	7	18	2	1	8	...	4	7	...	1	1	5	...	1	...	...	...	...	...	1	1	...	...
22	1	13	67	22	71	14	25	22	9	61	10	...	8	1	7	7	4	...	...	...	1	8	...	1	1
12	6	10	39	22	27	3	16	16	11	26	14	...	1	...	2	6	8	...	...	...	1	2	2	...	...
...	15	...	2	21	2	2	2	...	2	3	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
30	32	38	8	30	10	...	...	2	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	7	3	3	30	4	1	5	3	...	2	2	...	8	...	...	...	...	...	...	...	1	...	...	1	1
17	34	15	15	40	10	...	10	...	5	14	5	...	...	...	...	1	1	...	...	...	1	1	1	1	...
...	7	5	12	27	16	...	7	...	3	13	4	...	...	...	...	2	...	...	...	...	...	...	...	...	...
56	50	43	21	21	23	19	21	26	7	13	9	...	...	...	1	3	...	...	...	...	...	...	...	...	...
11	8	12	26	44	33	...	6	9	2	6	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19	5	5	43	42	56	2	20	4	...	44	1	1	1	1	...	...	...	...	...	...	...	...	1	1	1
16	52	24	7	11	7	5	12	6	1	5	...	...	...	...	1	1	1	...	...	...	...	...	...	...	...
25	23	35	21	23	17	5	20	11	5	11	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19	53	32	11	16	15	21	30	19	4	7	6	4	4	5	...	...	...	...	...	...	...	...	...	...	...
10	7	15	48	49	49	12	17	7	13	46	15	1	6	1	...	4	...	...	...	...	...	...	...	...	...
23	22	21	88	79	98	10	15	10	24	43	39	...	1	...	...	...	...	...	...	...	...	...	...	...	...
20	14	25	4	42	12	7	21	8	...	20	...	...	...	...	...	2	...	...	...	...	...	...	...	...	1
21	50	26	5	21	4	2	5	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
52	33	44	5	29	10	9	14	14	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	1	1	26	1	25	1	1	1	16	34	36	...	...	...	9	19	7	...	...	...	2	8	2	3	3
13	7	14	37	40	32	2	...	1	10	29	16	...	...	...	...	...	...	...	...	...	...	...	...	...	...
65	35	60	34	45	41	28	44	29	4	10	4	1	1	1	...	1	...	...	...	...	...	...	...	...	...
25	5	25	21	46	23	5	21	8	...	33	1	...	...	...	...	...	...	...	...	...	...	...	1	1	1
43	49	24	2	32	31	4	35	7	2	9	2	...	4	...	...	...	...	...	...	...	...	...	...	...	...
4	17	15	24	31	12	2	3	1	2	19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
39	36	43	7	20	10	1	1	1	3	2	1	1	2	1	...	...	...	1	1	...	...	...	2	2	2
9	34	4	...	4	1	...	...	...	5	4	2	1	1	...	...	1	...	...	...	...	...	...	...	...	...
12	15	5	26	15	13	8	12	...	10	15	7	...	2	1	2	2	1	...	...	...	2	2	2	...	...
3	17	2	9	45	6	1	9	1	1	1	...	1	1	1	2	1	2	...	...	...	1	1	1	...	...
3	13	6	5	56	31	1	13	1	...	34	...	...	2	...	...	1	...	...	...	...	...	...	...	...	...
2	27	...	3	16	1	2	2	...	1	6	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
35	46	44	31	63	47	15	34	22	4	9	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15	25	31	4	13	12	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	36	33	...	13	2	...	20	2	...	4	...	...	...	...	1	...	...	...	...	...	...	1	1	1	1
16	13	24	47	62	54	3	8	4	29	55	36	1	...	...	6	7	...	...	...	...	...	...	...	...	...
6	32	9	3	16	23	1	8	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
33	37	57	14	33	16	11	29	5	6	10	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1816	3296	2018	1454	2857	1660	428	1270	514	343	1225	310	18	59	23	41	95	26	4	4	2	16	25	17	15	20	

in Iowa last year for less than \$20 per month.

TABLE No. VII.

Teachers Tenure in One Room Rural Schools.

			Number of schools in which 3 different teachers were em- ployed during the year.		
				played during the year.	
Audubon	26	49	80	Jones	42
Adams	18	19	24	Keokuk	51
Adair	17	58	40	Kossuth	62
Appanoose	22	40	1	Lee	41
Allamakee	17	24	2	Linn	45
Benton	40	58	80	Louisa	23
Buchanan	39	60	34	Lucas	12
Butler	15	47	11	Lyon	33
Boone	29	33	28	Madison	9
Black Hawk	37	58	34	Mahaska	30
Buena Vista	32	30	8	Marion	31
Bremer	23	30	16	Marshall	37
Cass	28	69	27	Mills	41
Clayton	68	52	9	Mitchell	28
Carroll	58	20	1	Monona	31
Crawford	19	16	19	Monroe	40
Calhoun	29	64	38	Montgomery	37
Cerro Gordo	43	59	27	Muscataine	22
Clay	42	56	21	O'Brien	31
Clinton	77	71	6	Osceola	24
Cherokee	33	49	39	Page	50
Chickasaw	15	20	10	Palo Alto	20
Clarke	18	64	9	Plymouth	59
Cedar	57	15	1	Pocahontas	45
Dallas	28	55	20	Polk	58
Dickinson	15	22	1	Pottawattamie	49
Davis	49	42	3	Poweshiek	28
Des Moines	35	27	6	Ringgold	21
Decatur	41	48	8	Sac	46
Delaware	46	47	12	Scott	29
Dubuque	19	19	2	Shelby	36
Emmet	51	18	5	Stearns	34
Fayette	37	54	24	Story	18
Floyd	34	42	18	Tama	53
Franklin	33	75	19	Taylor	13
Fremont	28	69	15	Union	30
Greene	27	50	37	Van Buren	24
Grundy	35	49	18	Wapello	9
Guthrie	21	70	43	Warren	16
Hamilton	54	63	24	Washington	28
Hancock	69	43	6	Wayne	35
Hardin	24	41	19	Webster	51
Harrison	12	35	15	Winnebago	34
Henry	18	55	20	Winneshiek	35
Howard	17	56	15	Woodbury	42
Humboldt	51	41	8	Worth	27
Ida	38	37	25	Wright	36
Iowa	46	51	28	Total	4,886
Jackson	44	35	9		1,808
Jasper	22	67	33		
Jefferson	25	46	21		
Johnson	32	67	36		

TABLE No. VIII.

School Tax Levies in Twenty Counties, Showing the Levies in the County Seat and the Average Levies in the Country Districts.

County.	Average Levies for County Excluding Town or City Dist.		County Seat.	Levies in County Seat.	
	Teachers' Fund. Mills.	Contingent Fund. Mills.		Teachers' Fund. Mills.	Contingent Fund. Mills.
Audubon.....	7	2.5	Audubon.....	13.7	7.8
Benton.....	7	2	Vinton.....	13.9	7
Buena Vista.....	7.1	2.3	Storm Lake.....	12.6	6.4
Buchanan.....	9.7	2.3	Independence.....	11.8	5.9
Cass.....	7.5	2.3	Atlantic.....	14	10
Cedar.....	4	2	Tipton.....	11	4.2
Des Moines.....	10	3	Burlington.....	18	5.8
Fremont.....	8	1	Hamburg.....	20	5
Greene.....	7	3.5	Jefferson.....	18	6
Humboldt.....	7.2	2.7	Sidney.....	21	10
Hancock.....	10.4	3.8	Garner.....	18	7.7
Mitchell.....	6.6	2.1	Osage.....	11.9	4.9
Monroe.....	7.6	1.9	Albia.....	13.2	5.3
Marion.....	10	3	Knoxville.....	15	9
Montgomery.....	6.8	1.7	Red Oak.....	19.8	10.4
Plymouth.....	7.8	2	Le Mars.....	19.8	7.1
Scott.....	7	2	Davenport.....	10.9	6.5
Union.....	3.2	1.6	Creston.....	15	12
Washington.....	8.7	2.2	Washington.....	14.2	4.8
Winnebago.....	6	1.7	Decorah.....	15	6.4

NOTE 1. The average levies in country districts last year, as reported by seventy county superintendents was: Teachers' Fund, 7.9 mills, Contingent Fund, 2.6 mills.

The average levies in 335 towns and cities reporting was: Teachers' Fund, 15.1 mills, Contingent Fund, 6.5 mills.

NOTE 2. For the school year ending September, 1904, there were 9,888 country children enrolled in the graded schools of Iowa towns and cities, the total tuition paid being \$114,537.16.

THE COUNTRY SCHOOL PROBLEM.

THE COUNTRY SCHOOL PROBLEM IN IOWA.

AN ADDRESS

Delivered before the Fiftieth Annual Meeting of the Iowa State Teachers' Association,

BY

JOHN F. RIGGS.

Superintendent of Public Instruction.

It shall be my purpose in this address to discuss the rural school problem as it is presented in Iowa today. This must not be construed as an admission on my part that all questions pertaining to the graded schools are settled. I pass by this class of schools, not that I think them ideal, or that I believe them to present no problems worthy of serious attention. The graded school has its problems, but in my opinion they are at this moment far less urgent than those presented by the rural school, and this must serve as my excuse for confining my remarks to the conditions and needs of the thousands of one-room country schools, where more than half of the children of the state must receive their elementary schooling which, with most of them, is all the schooling they ever receive.

These country children are in most respects most happily situated. The beauties of nature smile upon them, and her myriad voices call to them in the solitude of field or forest. They have a healthful environment. The example of virtue and honor in the home and in the community is in the main before them. Duties many and continuous await them, and their labor is directed to definite ends. They have time for quiet reflection and opportunities to use their reason and judgment. Their environment is well suited to develop a strong body and an active, vigorous mind. No class of our youth gives greater promise of usefulness. These country children deserve and have a right to demand school privileges in every way equal to those accorded to the children of towns and cities. That the school privileges at present accorded them are not equal to those provided in the graded schools of our town and cities can not be questioned by anyone at all familiar with the facts.

I am not unmindful that there are many country schools superior to some graded schools. Where twenty-five to thirty country boys and girls meet a strong, tactful, resourceful teacher whose heart is in her work, and who is aglow with enthusiasm, there we will find a school worthy the name, and a teacher who is doing a service equal to that of any teacher in a graded school. Every county in Iowa has a few such teachers and a few such schools. But

in a great majority of country schools the conditions are such that superior work is impossible.

What are these conditions?

First, small schools and irregular attendance.

Second, schoolhouses with meager equipment.

Third, teachers often inexperienced and of inadequate scholarship.

Fourth, frequent change of teachers.

Fifth, a school year more than one month less, on the average, than prevails in towns and cities, and no provision for instruction beyond the elementary grades.

Sixth, poor classification.

From reports recently received from secretaries of the rural schools of the state it is shown that last year 65 in every 100 of our rural schools had an average daily attendance during the fall term of 15 or less; 62 in every 100 had a like small attendance during the winter term, and 69 in every 100 had a like small attendance during the spring term.

Or, if we take the number of schools where the average daily attendance was more than 20, we find that during the fall term it was but 15 per cent; during the winter term 16 per cent, and during the spring term 12 per cent of the whole. These figures are based on reports received from 10,019 out of a total of 12,521 rural districts.

Or, looked at in another way, we find the total number of persons between the ages of five and twenty-one years in the 12,521 rural districts of the state to be 382,200, or an average of 30.6 for each school corporation employing but one teacher, while in corporations where a graded school is maintained the number of persons between the ages of five and twenty-one years aggregates 341,166, or an average of 47.2 for each teacher employed in these corporations.

But these figures do not tell the full story of the inequality, for it must be remembered that nearly ten thousand country boys and girls included in the country enumeration are enrolled in the graded schools as tuition pupils, besides many more in the academies and the preparatory departments of colleges. It follows, therefore, that the percentage of enrollment is greater in the graded than the ungraded school, and we know the attendance is much more regular. We assign to the graded school teacher, on the average, very nearly double the number of pupils assigned to the teacher in the country school. The trouble is further aggravated from the fact that, as a rule, the very small school suffers in interest and enthusiasm, and in consequence the percentage of attendance is abnormally low.

Again, the country school suffers in comparison with the average graded school in the matter of equipment. Globe, dictionary, wall maps and a liberal supply of supplementary reading books are seldom missing from the graded school and seldom found in the ungraded school. The schoolhouse itself is often neglected and the schoolroom uninviting.

AN ARMY OF INEXPERIENCED TEACHERS.

But the rural school suffers more from inexperienced and poorly prepared teachers than any other one cause. Last year 3,479 certificates were issued in Iowa to persons who have never taught. Out of a total of 22,845 certificates issued by county superintendents, but 3,321 were first-class certificates.

Now it is the very common practice with school boards in our larger towns and cities to require as one of the conditions of election that the applicant hold a first-class certificate, and that she show successful experience as a teacher.

Out of a total of 3,974 teachers employed last year in 134 towns and cities of Iowa, all but 82 were experienced teachers. Five hundred four were graduates of some state normal school; 719 were college or university graduates, and 2,269 were graduates of some academy or private normal school or of a high school maintaining a four-year course. In addition to these teachers employed in the larger towns, there were as many more employed in the other graded schools of the state. A smaller, yet large per cent of these also were, no doubt, trained and experienced teachers. Where were the 19,524 holders of second-grade and third-grade certificates, 3,479 of them without experience? Most of them were employed in the country schools.

I hasten to say that not all teachers in the country districts are with little or no experience and of meager education. Some of our very best teachers labor from choice in the country. And then it often happens that the young teacher, with her first school in a remote country district, does a work of the very highest merit. I am persuaded that much of the teaching done in the one-room country schools will bear favorable comparison with the best teaching in our cities. No teacher who labors in the country need apologize for that fact; neither should she feel that the work given her to do is of any less importance than that undertaken in the more pretentious city position. But after all this is said, the fact remains that a very large per cent of the country teachers are without professional training, that some of them, unfortunately, possess very limited scholarship, and that many of them are immature and inexperienced.

The country school suffers further from the frequent change of teachers. The more than 7,000 teachers employed in the *graded schools* of the state are employed for the full year, beginning with the fall term, and it is the common practice to re-elect the successful ones from year to year. This practice does not prevail in the country. In 4,836 country districts in Iowa last year, two different teachers were employed, and in an additional 1,808 country districts three different teachers were employed to teach the same school at different seasons of the year. This frequent change of teachers results in enormous waste. No school is up to its maximum of efficiency when teachers and pupils are strange. This loss is particularly great in the country school where the classification is less perfect and where the teacher requires considerable time in which to determine the status of the individual pupils as to advancement and as to ability for work. Now if this breaking in process must be gone through with every two or three months, it will readily be seen that the loss to the schools from this cause alone is very great.

And, then, our country boys and girls are not offered school privileges for so many months in the year as is common in the towns and cities. Of the 770 schools in Iowa employing two or more teachers, 31 were in session last year over nine months, 630 were in session nine months, and 109 were in session less than nine months. But in the country districts, out of a total of 10,019 reporting, 1,599 schools were in session last year seven months or less, and of this number 469 were in session but six months; 6,462 were in session more than seven months and less than nine, and but 1,958 were in session

nine months. That is to say 87 per cent of the graded schools of Iowa were in session nine months or over, and 19 per cent of the country schools were in session nine months, and none for a longer period.

THE MATTER OF CLASSIFICATION.

Furthermore, the country school loses in comparison with the graded school in the matter of classification. Where all the classes in from six to eight grades must come before one teacher, the periods for recitation must be so short as to impair the efficiency of the recitation; and then the teacher, by giving attention to so large a number of subjects, can not do the effective work that would be possible were her energies centered on the work of a few grades instead of on many. Again, the classes in fully three-fourths of our country schools are exceedingly small, in hundreds of instances containing but one pupil. In such cases all the instruction becomes individual. Such a condition is unfortunate in any school. While individual instruction should have a large place in every school and the enrollment should never be so great as to preclude it, there is yet a value in class instruction that is lost to the pupil who must recite by himself. Children learn from one another. In a class of pupils there is the contact of mind with mind, the spirit of emulation is awakened, the interest is sustained, and advancement is more rapid.

Besides all this, the children of the towns and cities are offered a free high school course of from two to four years, which the country children are denied, unless they pay for it themselves and go away from home to get it. Last year 3,932 children from the country were enrolled as tuition pupils in the grades of our town and city schools, and 5,956 were thus enrolled in the high schools,—a total of 9,888 and these country children paid to the cities in tuition more than \$114,000, nearly the whole of it from their own pockets or the pockets of their parents. The figures I have thus far given in this address will, I believe, convince any unblased mind that, so far as school privileges are concerned, the country child is placed, in comparison with the city child, at a great disadvantage. A smaller per cent of his teachers are trained and experienced; he must suffer the annoyance and loss incident to frequent change of teachers; he loses in social privilege because of the prevalent small school; he often loses the inspiration of numbers in class work; his school year is shorter and he has no high school privileges in his home district. In view of these conditions no one, I think, will deny that we *have* a country school problem in Iowa.

I can take the time today to discuss but one or two of the questions involved in that problem.

It is my belief that a teacher can do her most effective work with a school of about two dozen well classified pupils. In such a school the classes will be large enough to insure class enthusiasm and the spirit of emulation, and at the same time small enough to afford the teacher opportunities for individual instruction. Many educators would assign to the teacher not less than thirty pupils, and some would make the number forty. Very few, I am sure, would hold that a school of twenty-four too large. But if such there be, certainly when the school is reduced below twenty, no one will be found who will deny that it is too small for the most effective work.

And yet we find in 60 in every 100 rural schools of the state the enrollment for the past school year was 20 or less, and in 85 in every 100 the average daily attendance was 20 or less.

There may be those who consider this condition accidental and liable soon to change. True, the school population in any community varies to some extent from year to year. But it must be remembered that economic forces are at work tending to reduce the rural population of the state in relation to the towns, rather than to increase it, and that these forces have been at work for a generation.

The past thirty years have witnessed a phenomenal growth of cities both in this and in other lands. In America they have also witnessed a marked increase in the size of farms, and a more than corresponding decrease in rural population. For the city has attracted to it the young men and young women by the tens of thousands, while the older people have as a rule remained on the farm. Then, labor-saving machinery has come in to supplant much of the hand labor required a generation ago. It is said that four men with improved machinery can now do the work that formerly required the labor of fourteen men. One of the results is shown in the constantly increasing size of farms. For the twenty years from 1880 to 1900 the average size of farms for the United States as a whole increased 9.8 per cent, while the increase in Iowa for the same period was 14.4 per cent.

For the ten years ending in 1900, Iowa increased in population nearly a third of a million; but the increase was chiefly in the incorporated towns and cities which, in 1900, contained 43.6 per cent of our people,—a gain of 7 per cent in ten years.

TEN THOUSAND COUNTRY CHILDREN IN CITY SCHOOLS.

The school population in country districts, already depleted by the operation of economic laws, has been still further reduced, as I have shown, by the attendance of nearly 10,000 country boys and girls in the city schools. And then there is scarcely a town in the state where a first class graded school is maintained but one or more families will be found who have moved to the town from the country for the express purpose of schooling their children.

I trust the time may come when, because of the larger returns from farming, and because of the greater advantages of farm life, farming will become more intensive, the size of farms be reduced and the rural population be increased. But the tendency at the present time is unmistakably in the direction of yet larger farms, and that means that the present status of rural population will suffer little change, and that what change there may be will be in the direction of a further decrease rather than an increase in rural population.

The problem, then, before the small school corporations of the state is whether the little schools are to be continued or whether school district boundaries are to be so changed as to greatly reduce the number of districts. This is a question each community must settle for itself. The legislature may and should remove all hindrances to the consolidation of contiguous districts where such consolidation is desired by the people of the districts in interest. Further than this legislation should not go, for local independence in the control of the school is a fundamental principle in America that we do well to guard.

While, in my judgment, consolidation of schools and transportation of pupils at public expense is the rational solution of the country school problem in Iowa, I want to see this solution applied where conditions demand it through the awakened interest of the people in the welfare of their schools. I have presented and, as I believe, without exaggeration, some of the weaknesses that cripple the efficiency of many of our country schools. A wise and liberal policy on the part of the school boards will remove some of the weaknesses. The schoolhouse may be made attractive, the surroundings made beautiful, the length of the school year increased, and *one* teacher, and she a competent one, employed for the full year. All that is necessary to bring about these results is to raise more money for the support of the school and to expend it wisely.

But some of the weaknesses I have depicted are inherent and will not be soon removed, unless a change is effected that will concentrate the interest and support on a few schools where we now have many. We live in an age of consolidation and co-operation. Your effort united with mine multiplies the power of us both. In this age no man liveth unto himself. The life of the community has extended itself over a wider area than formerly. The rural telephone has helped to widen the community interest. Everything suggests the wisdom of extending the school district borders to embrace several contiguous districts, and in this enlarged district to have one school center uniting the energies of all on a single school in which all are equally interested. I am aware that it is said by many that the country schoolhouse is indispensable as a place of assembly for the people. But anyone familiar with rural life knows that the particular schoolhouse in a group of districts that seems most easy of access to the largest number of people comes to be the natural meeting place for the community, and that meetings, whether religious, educational or political, are held almost invariably in this particular schoolhouse. The territory tributary to this natural center varies. It may include practically the entire township, or it may be much more restricted in extent. But it is seldom co-extensive with the usual small school district. In such a territory the schoolhouse where public meetings are held by common consent constitutes the social center, and there is little need of any other schoolhouse in the same territory, either for school purposes or as a meeting place for the people. This community interest would be greatly strengthened if, instead of the small one-room schoolhouse, an up-to-date building with library and commodious assembly hall should take its place.

BENEFIT OF CONSOLIDATED SCHOOLS.

In such a school the social life of the children is widened; the circle of acquaintances is extended; classes are larger, and there is the contact of mind with mind that is absent in the class of one pupil. And, finally, the teacher is permitted to concentrate her energies on a few grades instead of teaching them all; to have comparatively few daily recitations instead of many, and to have twice as much time for the recitation as in the school where the whole range of classes must come before her.

Many people have the impression that consolidation means the abandoning of country schools and the transportation of the children to cities and towns, where they are taken into an entirely different environment. But the

consolidation I am contending for contemplates nothing of the kind. I believe the school environment in the country is, in many ways, superior to that in the city. I want the country school to remain in the country so far as possible, but I want it large enough for the employment of from two to five teachers, and with no teacher in charge of less than twenty-five nor more than thirty pupils. Such a school organization might cost the people less in dollars and cents, but the possible saving in money is not the ground upon which the change is urged. The end of consolidation is to get better schools and to multiply the benefits to the children.

Consolidation commends itself to our favor because it will offer the opportunity for proper classification, of a reasonable number of pupils to the teacher, of regular and punctual attendance, and hence the vast increase to the pupils of the benefits the school can bestow.

The small school serves but few people, and is supplied by the taxes raised on comparatively small amount of property. Neither the public interest nor the financial support is, therefore, likely to be such as to encourage the development of the school. While advancement is noted all around, in every business and in every department of human endeavor, the little country school is likely to conform very closely to the type of school of a past generation. But unite the interests of a larger number of people in the school, and bring to its support the taxes on a larger aggregate of property, and better conditions will be speedily and easily secured.

Union and co-operation alone will make possible the twentieth century school. We may project the nineteenth century school into the twentieth century, but the school that keeps pace with the times and meets the demands of the age must have the interest and financial support of many people and the services of a number of skilled teachers working in co operation. The school of the past generation was concerned chiefly with the intellectual development of the young, and little attention was given to the physical. But educators everywhere are now awakening to the need of manual training.

Hand work, the use of tools, the experimental study of plants and soils will take their place alongside the study of books and add immensely to the interest and practical value of the schools. But it is manifest that this enlarged usefulness can not be easily secured in the little isolated district. Neither is it possible for the school in such a district to be other than extremely elementary. The high school is as much the birthright of the country child as it is of the city child. But it can come to the country child *in* the country only through consolidation.

Along with the problem of the little school is the vexed teacher problem. I shall not discuss this problem today, only in so far as it is related to consolidation of schools. Were it possible today to gather all the country children of Iowa into consolidated schools, more than 2,000 teachers could be eliminated and no one of those continued be given more than twenty-five pupils to instruct. At the present time county superintendents find it impossible to fill all their schools with competent teachers. It follows, therefore, that if we could dispense with 2,000 of the less competent persons now licensed in order to keep the schools open, there would be an immense gain to the schools.

But as suggested a few moments ago, the initiative in the matter of country school consolidation, if taken at all, must be taken by the people in the local communities. The change, therefore, can not come suddenly. All the difficulties in the way, and there are difficulties, must be carefully weighed, the local conditions in each community consulted, and the benefits of the proposed changes proven to the people beyond dispute before the little districts will be abandoned and the larger school units established. I am glad this power rests with the people, for though changes sorely needed may be delayed, when they come they will be abiding and will have back of them the support of the people and will bespeak intelligent direction by the people.

IOWA'S SCHOOL POSSIBILITIES.

But while the realization of the highest possibilities of the country school will doubtless come through consolidation, let no one think that nothing can be done to improve the condition of the school under its present organization. The people in any district with awakened interest in the school can beautify the schoolhouse and grounds, render the schoolroom cheerful and attractive, have school furniture of the best, install a library of choice books, provide maps, globe, dictionary and a liberal supply of supplementary texts; maintain a nine months' school and employ a good teacher; and even without formal consolidation they may unite with the people of other districts in the support of a central room of higher grade, where the advanced pupils from several districts may assemble for the instruction they are now obliged to go to the towns to secure. More money raised for the support of the school will accomplish all this and I believe the people of this commonwealth are so enamored of their schools that additional expense will be willingly incurred if they may but know that the interests of the children demand the further sacrifice and that the revenue provided will be wisely and effectively expended. The average tax levy for school purposes in the towns and cities of Iowa is double the levy for like purposes in the country, the average levy for the teachers' and contingent fund combined being last year 10.5 mills in the country and 21.6 mills in the cities.

Iowa is a state of colossal wealth; her material resources are vast beyond computation; her riches abundant beyond the dream of avarice. A people so abundantly favored as are the people of Iowa can give their children educational advantages unsurpassed if not unequaled by any state of the Union.

Vast as is the amount now raised by voluntary taxation for the support of the public schools, I believe that we are at the threshold of an awakening that will greatly increase this aggregate. With a tax levy in country districts, not equal to that which now obtains in the cities of this state, but 60 or 65 per cent of such levy, country school boards will have a revenue at their disposal that can easily put the country school at the very forefront of educational progress.

No class of American citizens excel the farmers, if indeed they equal them, in intelligence and character; and the farmers' children are, as someone recently said, "the best educational material in all the land." Who may say that these people may not and will not rise to their opportunities and maintain schools in the country equal in duration and in equipment and equal if not superior in efficiency to the best schools now maintained in the cities.

PRESENT STATUS OF CONSOLIDATION.

CONSOLIDATION OF SCHOOLS IN IOWA.

A special report recently made by the county superintendents of Iowa gives the following facts concerning consolidation of schools in this state.

For the year ending September, 1904, thirty-five counties had consolidation in some form. In eighteen counties the consolidation was designed to be permanent, while in seventeen it was undertaken as a temporary expedient. In all there were fifty-three permanently consolidated schools reported, and of these eighteen were consolidated within the year. In addition to the permanently consolidated schools, eighty schools were temporarily closed for the year.

Eight hundred and fifty-nine children were transported at public expense and the aggregate amount paid for transportation of pupils was \$14,321.65.

Superintendents answer certain questions as follows:

1. Are the people satisfied with the change?
Sixteen, "Yes."
One, "Decidedly yes."
Seven, "With most, yes."
One, "No."
Ten, no answer.
2. What effect has consolidation had on the per cent of pupils enrolled?
Fifteen, "Enrollment greater."
One, "No change."
Eighteen, no answer.
3. What effect on average daily attendance?
Fifteen, "Average attendance greater."
One, "No change."
Eighteen, no answer.
4. What effect on tardiness?
Sixteen, "Cases of tardiness much less."
Two, "No change."
Seventeen, no answer.
5. Has consolidation resulted in lengthening the school year?
Eleven, "Yes."
Five, "No change."
Nineteen, no answer.
6. Are better wages paid in consolidated schools?
Thirteen, "Yes."
Six, "No change."
Sixteen, no answer.

7. What effect has consolidation had on the general efficiency of the school?

Seventeen, "Schools better."

One, "No, change."

Seventeen, no answer.

8. Has consolidation resulted in increasing the cost of maintaining the school?

Nine, "Cost greater by from 2 to 20 per cent."

Three, "Cost same."

Four, "Cost less."

Nineteen, no answer.

The ten superintendents who failed to answer question "1", and twelve of those who did not answer questions "2" to "8" inclusive, have temporary consolidation only. The same is true of the one who gave a negative answer to question "1."

CONSOLIDATION AND TRANSPORTATION.

Ry J. C. BENNETT,

Deputy Superintendent Public Instruction.

THE LAW.

Section 2773. "It (the school board) may * * * determine the number of schools to be taught, * * * determine the particular school which each child shall attend, and designate the period each school shall be held beyond the time required by law."

Section 2774. " * * * And when there will be a saving of expense, and children will also thereby secure increased advantages, it (the school board) may arrange with any person outside the board for the transportation of any child to and from school in the same or in another corporation, and such expenses shall be paid from the contingent fund."

Section 2806. "The board of each school corporation shall at its regular meeting in March, or at a special meeting called for that purpose between the time designated for such regular meeting and the third Monday in May, estimate the amount required for contingent fund, * * * and such additional sum as may be necessary not exceeding five dollars for each person of school age for transporting children to and from school; * * *"

Section 2776. It (the school board) shall have power to maintain in each district one or more schools of a higher order, for the better instruction of all in the district prepared to pursue such a course of study, and it may establish graded or union schools and determine what branches shall be taught therein, * * * and it may select a person who shall have general supervision of the schools in any district subject to the control of the board."

Section 2799. "Independent districts located contiguous to each other may unite and form one and the same independent district in the manner following: At the written request of any ten legal voters residing in each of said independent districts, or, if there be not ten, then a majority of such voters, their respective boards of directors shall require their secretaries to give at least ten days' notice of the time and place for a meeting of the electors residing in each of such districts, by posting written notices in at least five public places in each of said districts, at which meeting the electors shall vote by ballot for or against a consolidated organization of said independent districts, and, if a majority of the votes cast at the election in each district shall be in favor of uniting said districts, the secretaries shall give similar notice of a meeting of the electors as provided for by law for the organization of independent districts including cities and towns." (See sections 2795 and 2796.)

NOTE—If the proposition carries, it is the duty of the secretaries of the several districts uniting, to determine upon a date and place, and give the usual notices for a meeting of the electors of the newly formed district for the purpose of choosing a board of directors.

In the consolidation of two or more rural independent districts, three directors will be chosen, one to serve until the next annual meeting, one until the second and one until the third annual meeting thereafter.

If the newly formed district contains all or part of a town or city of the second class, five directors shall be chosen, two to serve until the next annual meeting, two until the second and one until the third annual meeting thereafter.

Should the proposed district contain all or a part of a city of the first class or a city under special charter, seven directors shall be chosen, three of whom shall serve until the next annual meeting, two until the second and two until the third. (See sections 2754 and 2795).

Section 2798. "The organization of such independent districts shall be effected on or before the first day of August of the year in which it is attempted, and, when completed, * * * the board of such independent district shall fix the amount of all necessary taxes for school purposes, including schoolhouse taxes, at a meeting called for such purpose at any time before the third Monday of August, which shall be certified to the board of supervisors on or before the first Monday of September, and it shall levy said tax at the same time and in the same manner that other school taxes are required to be levied."

Section 2800. "A township which has been divided into rural independent districts may be erected into a school township by a vote of the electors, to be taken upon the written request of one-third of the legal voters residing in such civil township. Upon presentation of such written request to the township trustees, they shall call a meeting of the electors at the usual place or places of holding the township election, upon giving at least ten days' notice thereof by posting three written notices in each rural independent district in the township, and by publication in a newspaper, if one be published in such township, at which meeting the said electors shall vote by ballot for or against a school township organization. If a majority of the votes cast at such election be in favor of such organization, each rural independent district shall become a subdistrict of the school township, and shall organize as such on the first Monday in March following by the election of a director, notice of which shall be given as in other cases by the secretary of each of the rural independent districts, and the directors so elected shall organize as a board of directors of the school township on the third Monday in March following."

Section 1. Chapter 89, Acts of the Twenty-seventh General Assembly. "When the boundary line between a school township and an independent city or town district is not also the line between civil townships, such boundary may be changed at any time by the concurrence of the boards of directors; but in no case shall a forty acre tract of land, by the government survey, be divided; and such sub-division shall be excluded or included as entire forties. The boundaries of a school township or the independent district may in the same manner be extended to the line between civil townships, even though by such change one of the districts shall be included within and consolidated with the other as a single district."

Section 2802. "When any changes are made in the boundaries of any school corporations, the boards of directors in office at the time shall continue to act until the next regular school election, when the new corporation shall organize by the election of directors in accordance with the new boundaries, whereupon the new boards shall make an equitable division of all assets and liabilities of the corporations affected; and if they can not agree, the matters upon which they differ shall be decided by disinterested arbitrators, one selected by each board having an interest therein, and if the number thus selected is even then one shall be added by the county superintendent, and the decision of the arbitrators shall be made in writing, either party having the right to appeal therefrom to the district court."

APPLICATION OF THE LAW.

SCHOOL TOWNSHIP.—The school township organization needs no change in order to provide for consolidation of the schools under the law. The first step toward consolidation is for the board to determine that there shall be one school, or a less number than formerly (section 2778), and provide a suitable building.

If sufficient schoolhouse funds are not on hand to erect such a building, it will be necessary to submit to the electors at a regular meeting (sections 2748 and 2749) or at a special

meeting called for that purpose (section 2750) a proposition to vote a schoolhouse tax, or to authorize the board to issue the necessary bonds. (Section 2812.)

When funds have been voted for this purpose, the board may then proceed to select a site and erect a building and make such other arrangements as may be necessary.

The electors may, by petition, compel the board to submit a proposition to the electors at a regular meeting of the corporation. (Section 2749.) The proposition submitted may be simply advisory as, "Shall the district schools be closed and the pupils transported to a central school?" Or the proposition may be to vote a tax or to authorize the board to issue bonds for the purpose of erecting the necessary buildings. The latter plan is preferable, because, if the proposition carries, the necessary funds will be available at once. The ballot should contain the proposition or propositions just as advertised in the notices for the meeting. Underneath *each* proposition should be a place where the voter may indicate his wish by "yes" or "no." (See also Lloyd township, page 184.)

The board will continue to consist of one member from each sub-district. Should a different number be desired, it may be secured by redistricting. (Section 2801). Should the number of districts be reduced to one, the board will consist of three members chosen by the electors of the entire corporation. (Section 2752.)

INDEPENDENT DISTRICTS.—Should two or more contiguous independent districts desire to unite, it may be accomplished under authority of section 2799. This section applies to the uniting of independent city, town or village districts; rural independent districts; or independent city, town or village districts with rural independent districts. (Opinion by attorney-general, page 183, report 1902.) Township lines are not a bar to the operation of this section.

Independent districts in the same civil township may consolidate by either of two methods as follows:

First—If it is not desirable to organize a district so large as the civil township, two or more districts may unite under section 2799. If it is desired to unite all the independent districts in the township, it may be done under the same section; or

Second—The rural independent districts in the same civil township may first unite to form a school township (section 2800), after which the process will be the same as indicated under "school township."

It may sometimes be advisable to unite an independent city, town or village district with all or part of a school township, or to unite a school township with all or part of an independent city, town or village district. This may be effected under section 1, chapter 89, acts of the Twenty-seventh General Assembly, provided the boundary between the two districts is not also the boundary of the civil township.

If the boundary of the independent city, town or village district is extended, to include all or a portion of the school township, the resulting district will be an independent city, town or village district; but should the boundary of the school township be extended, the resulting corporation will be a school township. (Opinion attorney-general, page 182, Report 1902.)

A STUDY OF THREE CONSOLIDATED SCHOOLS.

BY JOHN F. RIGGS,
Superintendent of Public Instruction.

I

LAKE TOWNSHIP, CLAY COUNTY.

On January 10, 1905, in company with County Superintendent, H. F. Fillmore, I visited the Lake Township central school. The day was very cold, mercury registering ten degrees below zero. Our visit was unannounced and unexpected. We found 98 pupils present out of a total enrollment of 119.

The school is located at the geographical center of the township, and the nearest building of any description is three-fourths of a mile distant. The schoolhouse, erected at a cost of \$3,000, is the only building in the township of a public character, there being no church, hall, shop, or store of any description. This school is in its second year. The children are con-

veyed to and from their homes in eight hacks. Three of these are provided with stoves and the others have blankets and robes. All are completely covered. The average cost per team for transporting pupils is \$28 per month. Two young men attending school are among the drivers.

As one of the direct results of consolidation in Lake township may be mentioned the fact that this winter four miles of excellent gravel road have been made,—the first attempt in that part of Clay county at this class of improvement. The work was mostly done by farmers gratuitously. They expect to continue the work next winter, and it will be but a few years until this township will have excellent roads, and the value of every acre of land in the township will be enhanced thereby. Last year the roads were so bad that transportation was next to impossible for a considerable time, but the people of Lake township have staying qualities, and they are proving the practicability of consolidation in the one township of all others in Clay county most unfavorable for the undertaking.

Church and Sunday school are held in the school building on Sundays and the hacks used to carry the children during the week are used to some extent to carry the people to church on Sunday.

The eight drivers furnish their own teams and hacks, and are under written contract similar to that outlined in the report on Lloyd township.

The different routes are indicated on the map appearing in this report.

The first child called for on Route No. 1 must ride 6 miles.

"	"	"	"	"	"	2	"	"	4½	"
"	"	"	"	"	"	8	"	"	6	"
"	"	"	"	"	"	4	"	"	6	"
"	"	"	"	"	"	5	"	"	7	"
"	"	"	"	"	"	6	"	"	4½	"
"	"	"	"	"	"	7	"	"	9	"
"	"	"	"	"	"	8	"	"	6	"

The driver for Route No. 1 receives \$40.00 per month.

"	"	"	"	"	2	"	20.00	"	"
"	"	"	"	"	3	"	28.00	"	"
"	"	"	"	"	4	"	30.00	"	"
"	"	"	"	"	5	"	31.00	"	"
"	"	"	"	"	6	"	20.00	"	"
"	"	"	"	"	7	"	30.00	"	"
"	"	"	"	"	8	"	25.00	"	"

For purposes of comparison, I give the following table showing enrollment, attendance, etc., in Lake township for the past five years, the first four under the old district plan and the last under the consolidated plan:

Year.	Enrolled.	Average Daily Attendance.	Total Paid Teachers.	Paid for Fuel, Repairs and Janitor.	Months' School.	Average Compensation Teachers.	
						Males.	Females.
1900	126	62	\$1,479.00	\$150.00	8	\$27.12	\$27.45
1901	120	55	1,639.00	120.00	8	.....	29.28
1902	107	64	1,650.00	150.00	8	.....	28.92
1903	96	70	1,102.10	380.00	5.5	28.00	29.60
1904	116	101	803.25*	150.00	8	50.00	37.50

*The figures given in this table are from the annual reports of the county superintendent of Clay county. Evidently this amount should be \$1,000 if all the orders for the year were paid.

It will be seen from the above table that the average daily attendance was 60 per cent greater last year than the average in the township for the four preceding years.

This year the principal receives \$50 per month and the grade teachers \$40 each per month.

The cost per month of maintaining the Lake township school at present is:

Teachers' salaries.....	\$130.00
Transportation (8 teams)	224.00
Fuel and janitor service (estimated).....	20.00
Total.....	<u>\$384.00</u>

The assessed valuation of the township is \$178,000. On the present basis of cost the levy for teachers' and contingent funds combined for eight months of school would be 17.2 mills.

For the year 1902, when eight months' school was maintained in the seven separate districts, the levy was 10 mills (assuming that the assessed valuation was the same then as now). But for the year 1902, the average daily attendance in the township was but 64, whereas it is now over 100. The people are spending more in dollars and cents, but they are getting more for the money spent.

Pupils are transported this winter from forty-one homes. To each of these homes I sent a letter requesting answers to the following questions:

1. Do you regard the school now being conducted in Lake Township as being better than the school you had previous to the consolidation?
2. When the schools of this township were consolidated did you favor consolidation or oppose it?
3. Are you now in favor or opposed to consolidation in this township?
4. Give reasons for your answer to Question 3.
5. What advantages, if any, have resulted from consolidating the schools of this township?
6. What disadvantages, if any, have resulted from consolidating the schools of this township?

Thirty-two answers were received. Of these twenty-six patrons say the school is better than formerly, most of them say "much better." Fourteen of the thirty-two were opposed to the consolidation at first, and ten are still opposed.

THE BENEFITS CLAIMED.

Those favoring the central school were very positive in their opinions.

Mr. J. P. Livingston, a director in the township for eight years, answers the six questions submitted as follows:

1. Yes, far ahead of it.
2. Yes and no, because the roads were not fit.
3. In favor.
4. Better school. Better teachers. Better roads. Children like to go better and advance more in one year than in two the old way. Children go ahead instead of standing still as they oftentimes did the old way. Also better attendance.
5. The roads have become better. Property is worth more and a better feeling all around.

6. It has cost more so far. I don't know of any other disadvantage. Hope the good work may go on.

The following are the principal arguments offered by others in defense of the new way as opposed to the old:

Children attend more regularly.

The pupils are learning better in every respect.

Better attendance.

Bad weather doesn't interfere with attendance.

Inexperienced teachers are eliminated.

Better classification.

Pupils learn more in same length of time, six months in the consolidated school being worth more than nine months in the district school, which means less relative expense.

Pupils have a graded school.

No pupil ever tardy.

Larger classes.

Country children get equal advantages with city children.

Parents know where their children are during the day.

More rivalry for excellence.

No exposure of children to inclement weather.

Better teachers.

Only slight advance in cost, cheaper per pupil considering work done.

Gives teachers time for individual work.

Fits children to enter high schools.

One schoolhouse only to keep up.

Better teachers and fewer of them to pay.

More interest in school work.

Causes improvement of roads.

Children can be educated without being sent to city.

Many go that would not go to district schools, among larger children.

THE OBJECTIONS URGED.

Those who still oppose the plan of having but one school in the township, urge the following objections:

"It makes all the school in winter and none in summer and it does not give the small children any advantage. I am also opposed to boys driving the bus. (Two of the young men students drive hacks in this township.) It also makes too long a day, starting at 7 o'clock and not coming home until 6 p. m. The disadvantages of the consolidation are poor roads, and also raising the school tax almost double."

"It is too hard on children from six to ten years of age. Some must start before daylight and do not get home until after dark, and ride ten miles. It makes most of the school in cold weather. About the only advantage is getting a better grade of teachers and it doesn't take as many. It costs too much money for transportation."

"The school is better, but in wet time the scholars can not be transported on account of the bad roads, there is no place for the drivers to stay during the day, the cost is double the district plan and the house is located in a frog

pond. But the scholars never are tardy, they have the benefit of a graded school, and are transported in a warm bus."

"If a good teacher were hired the district school is the best. The graded school is an advantage, but the district is better, figuring expense, and the long ride of pupils. The disadvantage is the great expense."

"I think it is a damage to this township. There are no advantages over the old way. It costs us more."

"It is too far away for little children in severe cold weather. Don't like some of the men they have for drivers."

"Too expensive and too far away from patrons on the out-edge of the township."

"The children are obliged to start about 7 o'clock and do not get home until 5:50. They can not have time to help at home at all when they are going to school."

"It makes taxes one-half higher. I opposed it for the reason that I am not located right. My children leave home at 7:15 to 7:30 a. m. and do not get back till 5:40 to 6:00 p. m."

II

LLOYD TOWNSHIP, DICKINSON COUNTY.

The board of directors of the school township of Lloyd submitted the following proposition to the electors at the annual meeting March 11, 1901:

PROPOSITION TO VOTE ON SCHOOL HOUSE TAX.

Notice to Voters: For an affirmative vote upon the following proposition, write the word yes in the square. For a negative vote write the word no in the square.

Shall a school house tax of ten mills on the dollar be voted and levied in the school township of Lloyd, in the county of Dickinson, State of Iowa, the same to be used for a school of higher order, or a ☐ graded school to be located at Terril, Iowa.

On this proposition 65 men and 8 women voted "Yes," and 37 men voted "No."

A site containing two acres was donated, and a four-room schoolhouse erected just outside the corporate limits of the village of Terril. The building cost \$4,000 and was completed and school opened in October, 1901. The old organization prevails whereby a subdirector is chosen annually in each of the eight (former) subdistricts, and one director chosen from the township at large, making a board of nine members. The people prefer this form of organization, because it insures representation on the board from every part of the township.

The board employs seven men with teams to transport the pupils to and from school. Each driver enters into a written contract whereby he agrees: "To furnish a strong, safe, properly covered vehicle, with comfortable

seats, and a safe, strong, quiet team, with proper harness, all being subject to the approval of the board; to furnish warm, comfortable robes or blankets sufficient for the best protection and comfort for each and all the pupils to and from the public school building and their respective homes; to collect all the pupils on the route by driving to each and all the homes where pupils reside each morning that school is in session in time to convey the pupils to school, so as to arrive at the school building not later than 8:50 a.m. and return the pupils to their homes, leaving the building at 4:00 p.m.; to personally drive and manage his team, and to refrain from the use of any profane or vulgar language within the hearing or presence of the children; nor will he use tobacco in any form during the time he is conveying the children to and from school. He agrees that he will not drive faster than a trot, nor race with any team, and that he will keep order and report improper conduct on the part of pupils to the Principal or the President of the board."

During the life of the contract the board retains one-half of the previous month's wages of each driver to insure the faithful performance of the contract.

The different routes are indicated on the map, appearing in this report.

The first child called for on Route No. 1 must ride 8 miles.

"	"	"	No. 2	"	5½	"
"	"	"	No. 3	"	6	"
"	"	"	No. 4	"	8½	"
"	"	"	No. 5	"	7	"
"	"	"	No. 6	"	6	"
"	"	"	No. 7	"	5½	"

The driver for Route No. 1 receives \$40 per month.

"	"	"	No. 2	"	33	"
"	"	"	No. 3	"	35	"
"	"	"	No. 4	"	40	"
"	"	"	No. 5	"	42	"
"	"	"	No. 6	"	34	"
"	"	"	No. 7	"	30	"

This school is now in its fourth year under the consolidated organization. For purposes of comparison, I give the following averages for the last three years under the old district plan and the first three years under consolidation.

For the years 1899, 1900 and 1901, the

Average enrollment per year.....	155
Average daily attendance per year.....	78
Average paid teachers per year.....	\$1,510.00
Average paid for fuel, janitor service and repairs.....	438.85
Average number of months per year.....	7
Average compensation of teachers per month, males.....	80.33
Average compensation of teachers per month, females.....	80.50

For the years of 1902, 1903 and 1904, the

Average enrollment per year.....	192
Average daily attendance per year.....	118
Average paid teachers per year.....	\$1,579.00
Average paid for fuel, janitor service and repairs.....	277.00
Average number of months per year.....	8
Average compensation of teachers per month, males.....	76.66
Average compensation of teachers per month, females.....	40.00

The average cost of tuition per pupil per month for the last three years under the district plan (based on the amount paid teachers plus amount paid for fuel and janitor service) was \$3.57. The average cost of tuition per pupil per month for the first three years under consolidation (assuming that the cost for transportation has been uniformly \$254 per month,—the amount now paid). was \$4.12.

While the consolidated school is costing the people more money in the aggregate, they are getting far more for their money. The school year has been increased one month, the average daily attendance has increased 51 per cent, the school is well classified, two grades of high school work are offered, trained teachers are employed, and the pupils are all interested in their work.

I visited this school, unannounced, on the 11th day of January, 1905. The weather was severe and a storm was raging. One hundred and twenty-four pupils were in their places, eighty-five of them from the country and thirty-nine from the village of Terril. The work of the pupils was as good as is usually found in city schools. Most of the teaching was excellent. The principal receives this year \$80 per month, and the grade teachers \$45 each per month. Among the songs the children sang during the opening exercises was one entitled "Uncle Sam is Rich Enough to Send Us All to School", and they sang with "the spirit and understanding."

The cost per month of maintaining the Lloyd Township school at present is

Teachers' salaries.....	\$ 215
Transportation (seven teams).....	254
Fuel and janitor service (estimated).....	25
<hr/>	
Total.....	\$ 494

The assessed valuation of the property in the township is \$280,000. On the present basis of cost the levy for teachers' and contingent funds combined would be 14 mills.

The answers to questions sent to the patrons of this school who live outside of the town of Terril show that the people of the township are in general heartily in favor of the present school organization as opposed to the old. Reports were received from the heads of twenty-seven families. Of these twenty-three are unqualifiedly in favor of the new way and four are in whole or in part opposed, as indicated by the following answers:

No. 1. "The school is not better than the district school—not for farmers. I am opposed, because the children have to ride from six to seven miles in all kinds of weather before they can get to school, and the bus on this route is not fit to haul children in. No advantages have resulted from consolidation in this township."

No. 2. "I consider the school much better. In part, I am in favor of the present plan. But being situated at the farthest distance from school, we find it difficult to keep the small children comfortably warm in severe cold weather, while the older ones suffer some. The greatest fault I find is in the long hours the children are from home on the road and at school."

No. 3. "The school is better, children learn more and come nearly every day. But I am against consolidation in this township. We can levy but \$2,200 for contingent fund and eight months will cost that fund \$3,200 at

least, so we are \$1,000 short. Seven wagons are now required. If all parts were settled it would take twelve."

No. 4. "The school is quite a bit better. Children have learned more, because they can afford to keep better teachers. I opposed consolidation when it was effected. In some ways I am now in favor and others not. The books have to be changed so often and the children must be on the road so long. They are apt to catch all kinds of sickness."

Of the other twenty-four reporting, *all*, without any reservations, favor the present plan. In answer to the question: "What disadvantages have resulted from consolidation in Lloyd Township?" eighteen say "not any," one adding: "And I recommend it to every township in the state of Iowa."

One says the only disadvantage is that "people on the outcorners of the township have to send their children out so early in the morning to get them to school." Another says it is a disadvantage "when the roads are bad and the taxes may be a little higher."

The reasons given in these replies for favoring the new plan are, in brief, as follows:

Can afford better teachers.

Pupils make better headway.

Our children can graduate at home instead of our having to send them away to high school.

School taught by instructors who know how to teach.

By transporting children, the little ones can attend now where they could not under the old plan.

Children attend more regularly.

Children graded in classes and take more interest in their studies.

More children attend.

Gives pupils all over the township the same advantages and has given all the advantage of better schools.

Pupils not exposed to the cold and storms.

Teachers are first class and are hired for the full year.

"Was opposed to consolidation. Now in favor of it. My children can ride five miles better than they could walk one."

People take more interest in the roads and look after the bad places.

III.

BUFFALO TOWNSHIP, WINNEBAGO COUNTY.

In the year 1895 the people of this township voted to form an independent district embracing the entire civil township, six miles square, and voted bonds running for a period of ten years for the purpose of erecting an eight-room building.

The board, which consists of five members, is chosen on the second Monday in March by the qualified electors, and is governed by the same provisions of law which apply to independent districts.

At first the country schools were maintained as formerly, but in August, 1897, the board arranged for the transportation of children in three districts. A year later the board, upon petition, arranged for the transportation of children from another ward and, in 1899, ordered all the rural schools in the

district closed, except those in the extreme northeastern and southeastern parts of the township. This arrangement continued till January, 1904, when one of the country schools formerly closed was reopened, with a membership of twenty-five pupils.

At the present time the district maintains eight rooms in the town of Buffalo Center and three in the remote parts of the district.

The central school is located only one mile from the western boundary line of the district, thus making it impracticable to transport pupils from the remote portions of the township.

The enrollment in the Buffalo Center School this year is 269. Of these 71 are from the country and are transported in 5 hacks. Drivers in this township receive on the average \$38 per month.

The taxable valuation of property in the township is \$349,901. Of this amount the sum of \$125,239 is credited to the incorporated town of Buffalo Center and \$224,662 to the remainder of the township. The present levy for teachers' and contingent funds combined is 22.1 mills.

It will be seen that this organization differs from that of the two just considered, since three one-room country schools are maintained in the remote parts of the township and the management of these schools is under the control of a board, a majority of whose members live in the town or immediate vicinity of Buffalo Center.

From replies received from this township, many of the people are apparently indifferent as to a choice between the old district plan and the present plan. One patron, with a suggestion of sarcasm, says: "It has given us the great privilege of furnishing 45 per cent of the pupils and of paying 65 per cent of the cost of the school, and having two of the five directors out in the country."

Another patron says no advantage has resulted from consolidation and adds: "The small children can't go to school in hard weather." However, a majority of the replies received from this township are favorable to the present plan, all but three saying they regard the Buffalo Center school far better than the one-room district school, and one adding: "For the town it is better, but not for the country." This patron who is strongly opposed to the present plan says: "I think 80 per cent of the children in the country quit school as soon as the law will allow them, as they can not attend school more than four or five months a year and they get so far behind the town children they are ashamed to attend town school." He also suggests that the hack service is not satisfactory.

Patrons who favor the present plan advance practically the same arguments that were offered in defense of the Lake township and Lloyd township schools.

Most of the arguments advanced by the opponents to consolidation in Buffalo township are not so much arguments against this form of school organization, as against the way in which it is applied locally. If the country children are permitted by their parents to attend school but four or five months in the year, the parents are derelict of their duty toward their children and must bear much of the blame. If the grading in the Buffalo Center school is so devoid of flexibility that the less favored pupils can not be reasonably classified, the management of the school should modify the grading in a way to meet the needs of these pupils, as well as the more

avored. If children suffer from cold, or are unprotected in the storms, the fault is with the board in not providing the best facilities for transporting pupils. Wagons designed and built specially for this service and owned by the district would entirely remove this objection. But with the consolidated school two miles from the center of the district, it is impossible that all the difficulties can be removed that are met with in this particular district, which maintains, nevertheless, a good school with high school advantages free to every child in the township.

CONCLUSIONS.

From personal inspection and study of some of the consolidated schools in this state, supplemented by the study of reports from other states where the system has been longer in operation and is much more general, I reach the following conclusions:

1. Pupils in consolidated schools very generally enjoy better school privileges and are taught by better teachers than under the old district plan.
2. Where transportation is provided for all pupils the cost of maintenance is usually but not always more than under the district plan, but the enrollment is so much larger and the attendance so much more regular that the increased benefits equal or outrun the increased cost of maintenance.
3. Where consolidation is successfully established, the opposition at first engendered gradually disappears and bitter opponents often come to be ardent supporters of the new plan when they see the superior benefits it secures to the children.
4. Where transportation is made the fixed policy in any district, wagons specially designed for transportation purposes should be owned by the district. This will result in the greater comfort of the children and make it easier for the board to secure competent drivers,—a matter of the greatest importance.
5. Children should seldom, if ever, be required to ride a greater distance than five miles. The very long rides are both expensive to the district and hard on the children. It follows from this conclusion that the civil township is, in general, too large a unit for a school district maintaining but one school. The law should authorize the change of boundaries between contiguous school townships or between school townships and independent districts in such a way that consolidated districts of smaller area than the civil township could be established. The size and outline of the consolidated district should be determined by the physical features of its area and by the location of the homes to be accommodated. The homes on opposite sides of a public highway should be in the same district; hence half section lines or quarter section lines, rather than section lines, should in the main separate school districts.

While an area somewhat smaller than the civil township is preferable as a permanent school unit, *township* consolidation is practicable where the roads are good and the schools are small.

6. The consolidated school should in the main be kept in the country or in the small country village. The school should be the social center of the community. Where one or more country districts are consolidated with a city district, the course of study should be made sufficiently flexible to pro-

vide for the classification, without loss, of those pupils who can attend school only during the winter months.

7. The need of consolidation should appeal most strongly to the people of the many districts where the children are so few that an *efficient* school can not be maintained. There is an urgent need of consolidating such districts. The need is less urgent in districts where a good attendance can be maintained, for a district school with a good enrollment and an efficient teacher may be an excellent school.

ALBION CONSOLIDATED SCHOOL.

The principal of this school, Mr. James H. Dutton, gives the following statement under date of January 11, 1905:

Fifty-one children are being transported this year to the Albion school. Three teams are used to transport them. The drivers furnish their own teams and conveyances, and are paid \$30 per month for their services. The hacks are comfortable, being warmed in severe weather by means of oil stoves. Selection of drivers is made by the school board who first consult the patrons as to their choice of applicants. Obtaining good drivers is a matter of no difficulty here.

Six teachers are required in the consolidated school. If we did not have consolidation, three would be required in Albion, and three in the country districts.

The patrons after a fair trial are generally well satisfied and know they have much better school privileges than under the old organization. We have fourteen more in the high school this year than last. A number have entered school who would not be here but for the superior advantages afforded. Ten pupils from outside the consolidated district are paying tuition in the high school.

MARATHON CONSOLIDATED SCHOOL.

This district is composed of what was formerly the independent district of Marathon and five subdistricts of the school township of Poland. The district contains $24\frac{1}{4}$ sections. Three subdistricts remain under the old township organization which has no organic connection with the Marathon consolidated district.

In 1903 a school building was erected in this district at a cost of \$20,000, and the school under the new organization opened November 9, 1903. At the present time there are 268 pupils enrolled, 111 of them from the country and 157 from the town of Marathon. Five teams are required to transport pupils. Drivers furnish their own conveyances and receive an average compensation of \$34.25 per month.

Before consolidation six teachers were required in Marathon and five in the country schools since abandoned. Eight teachers are now required in the consolidated school. It has thus been possible to eliminate three teachers. The saving of the salary of three teachers and the saving in fuel

and repairs incident to closing five buildings will very nearly pay for the transportation of the pupils, who now have access to an excellent school offering high school privileges.

CONSOLIDATION IN INDIANA.

From a report recently issued by State Superintendent Fassett A. Cotton, of Indiana, it is shown that 783 district schools have been abandoned in that state, and 5,396 children transported to central schools. For this service 378 teams are required at an average cost of \$1.60 per day or \$32 per school month.

From a detailed report on consolidation in Lagrange county, Indiana, for the school year 1903-1904, it is shown that consolidation has been effected in eight of the eleven townships. The county superintendent, H. S. Gilhams, furnishes the following statement:

1. The drivers carry watches and consult them while on the route.
2. Each driver keeps the time of the consolidated school, generally standard.
3. The rate of speed while on the route averages five miles per hour for the year.
4. The time of arrival varies from ten to fifteen minutes prior to the opening of the school.
5. The more remote pupils ride about five miles and 60 per cent ride three miles or less.
6. Children are kept comfortable by stoves, patent heaters, blankets and soap stones.
7. The greatest advantage to the service is township ownership of hacks and the improvement of roads.
8. The drivers exercise due responsibility in promptly and safely conveying the children to school and returning them to their homes. They also, by contract, prohibit questionable language, undue familiarity and boisterous conduct in or about the hacks.
9. Eighty-five (85) per cent of the patrons have reported the consolidated school as their preference in comparison with the "old way."

The following statement of gains and losses due to consolidation in this county is also given:

Number of schools receiving conveyed pupils.....	14	
Number of schools abandoned.....	88	
Additional teachers required in the central schools	7	
Saving in number of teachers.....	31	
Saving in salaries of teachers.....		\$10,651.60
Saving in fuel and repairs.....		2,260.00
		<hr/>
Total saving.....		\$12,911.60
Number of pupils conveyed.....	428	
Number of hacks required	29	
Total cost for transportation for the year.....		6,176.86
		<hr/>
Net saving, not counting additional cost of fuel and janitor service in consolidated schools.....		\$ 6,734.74

TUITION PUPILS IN THE GRADED SCHOOLS.

There are 770 graded schools in Iowa. Of this number 544 had, last year, tuition pupils from country districts either in the grades or high schools or both. The aggregate number of tuition pupils with the amount received by graded schools for tuition for the year ending September 1, 1904, is as follows:

	Boys.	Girls.	Total.
Tuition pupils below ninth grade.....	2,022	1,910	3,932
Tuition pupils in grades nine to twelve, inclusive.....	2,701	3,255	5,956
Total number tuition pupils in all grades.....	4,723	5,165	9,888

Tuition received below ninth grade.....	\$ 34,579.14
Tuition received in high school grades.....	79,953.02
Total tuition received.....	\$114,537.16

	Mills.
Tax levy for school purposes in cities and towns (on basis of 383 reports)—	
Teachers' fund.....	15.1
Contingent fund.....	6.5
Tax levy for school purposes in country districts (on basis of averages reported from 70 counties)—	
Teachers' fund.....	7.9
Contingent fund.....	2.6

TEACHERS EMPLOYED

in the 134 towns and cities of Iowa, having a population of 1,500 or over.

Total number employed.....	3,974
Number who are graduates of the Iowa State Normal School....	867
Number who are graduates of other state normal schools.....	136
Number who are graduates of some college or university.....	719
Number who are graduates of academies, private normal schools or high schools maintaining a four-year course.....	2,269
Total who are graduates.....	3,491
Number with no experience.....	82
Number who hold state certificates or life diplomas.....	552

EDUCATION OF THE FARM BOY AND GIRL.

* * * Have the advantages for the education of the farm boy and girl kept pace with the advancement in all other lines of society? Is the little schoolhouse, with its poor equipment, with the poorly trained teacher in many instances, and with very poor work in the common branches sufficient to meet the demands of today for the common school education?

Have we not reached the period in all the central western states where nothing short of a well equipped schoolhouse, a first-class teacher and a course of study revised to meet the demands of the times, are a necessity for our children?

I believe that every farmer who reads this article will agree with me that conditions have changed since he was a boy, and that it takes a better trained mind to be a successful farmer or business man today than it did even ten years ago.

It is safe to say that the time has come when the farmer must have within comparatively easy reach of his home a well constructed schoolhouse, thoroughly equipped for giving the best of modern education. He ought not to have to send his son or daughter away from home to school until at least two years of the work of the modern high school has been completed. The farm boy and the farm girl should be at home at nights while they are getting their general education. These conveniences may be had everywhere by the consolidation of schools in localities of mutual interests. This has already been done to a large extent in Indiana, and the plan is under good headway in Iowa and some other western states.

There is no reason why the farmers should not provide these conveniences of education for their children. It is nothing more than they are doing to provide themselves with better means of breeding and handling their stock or improving their farms, and certainly their children's welfare is of much more concern than any farm or stock improvements. * * *

The new conditions of life on the farm demand improvement in general education for the farm boy or girl. It is presumed that the course of study will contain a good course in bookkeeping, and facilities should be provided for a certain amount of industrial work. The children in the grades should be taught to make various articles, such as cardboard modeling, clay modeling, weaving of rugs and hammocks, baskets with raffia, reed and willow, doll houses with raffia furniture and various articles that may be easily made under the direction of a trained teacher, and both the children of the grades and the high school should have access to a shop where they may learn to make articles by the use of simple tools. This work is not to be carried on with the idea of making carpenters or artisans of all, but with the thought in view of cultivating a desire and an appreciation for such work and the further idea of giving the pupils the opportunity to acquire the ability to help themselves and thereby to help others. A few hours a week at such work as this will prove invaluable to any child. Parents have not come to the realization yet how much this industrial work means to their children. The expense of providing this equipment is nominal, compared to the good to be received, and the pupils need very little instruction in order to acquire the training it is intended they shall secure from such work. * * *

* * * The proper education of the farm boy and girl can not be neglected

without bringing ruin upon the farming communities. If these advantages are not provided the farm boys and girls will drift away early into other callings. If the right kind of schools are provided for the country boys and girls they will remain at home until they receive this general education, and then if they have gifts in other directions it will be time for them to seek special schools.—*Pres. O. H. Longwell in Twentieth Century Farmer.*

A NEW ARGUMENT.

The arguments commonly advanced for the township consolidation of rural schools are, first, the increase in the efficiency of the teaching, second, the economy in financial expenditures for the support of the schools. A third argument which we have not heard advanced is the increase, without extra expense, of the size of the school grounds, which, considered in the light of fifty or a hundred years hence, is as potent an argument for rural consolidation as either of the first two.

The instituting and observing of Arbor day the past few years has suggested the idea of preserving the native woods of, for instance Iowa, by planting on school grounds all trees and shrubs that are indigenous to Iowa soil. This, to be effective would require larger plats of ground than at present is set off for school purposes. No rural school plat should contain less than ten acres of ground, which should be set out, in large part, in the form of small groves each containing trees of a kind; there being as many small groves as there are trees indigenous to the soil. What an ideal for a school environment, where the pupils have an opportunity to commune with nature direct, and under conditions best fitted to stir the proper emotions of the soul and inspire to higher thoughts and aspirations! And yet how feasible and easy of attainment, while land is comparatively inexpensive, especially by consolidating the eight or nine districts of a township into one, and appropriating the amount of ground to the one district, that is already appropriated to the nine. Now is the time to inaugurate such a movement. One hundred dollars an acre for such a purpose would be economically spent. The time is coming in the future when America shall have reached the density of population, already attained in some of our European states, when land will have risen to such a value as to prohibit such a proposition as presented above.

County Superintendent Cole, of Cerro Gordo county, asks in the November number of the *Midland* schools, the question, "Would the migration to the city be so great if our rural pupils were offered that which would develop and make them intelligent and scientific farmers, thereby making rural life more attractive?"—A very pertinent question.—*Union County Public Schools.*

One Phase of the Teacher Problem

**The Greatest Need of Any School is
a Trained and Competent Teacher.**

THE LICENSING OF TEACHERS

Address:

Delivered before N. E. Iowa Teachers' Association Dubuque, Oct. 22, 1904.

by

JOHN F. RIGGS.

Superintendent of Public Instruction.

I have a purpose in discussing at this time the hackneyed subject of teachers' examinations. In a little more than a year from now the Thirty-first General Assembly of Iowa will meet. At that time some important school legislation will be urged, and doubtless one of the most important measures will relate to the examination of teachers. But all efforts looking to the change of our laws on this important subject will be utterly futile unless the strong teachers in the ranks, and the county and city superintendents of the state give earnest support to the measures which may be brought forward.

I am, therefore, discussing this year in the four district meetings of the state the question of licensing teachers in the hope that the leading teachers who attend these meetings may be set to thinking on this subject long enough in advance to have well-grounded convictions when our legislators shall again meet in general assembly; and if you shall come to agree with me that radical changes in our system are needed, I ask earnestly that you make known your views on this subject to the men who may represent you in the next general assembly, and that you use your influence in creating a public sentiment in favor of the changes proposed.

I am of the opinion that we now have much needless examination of teachers. I am also of the opinion that, by some hook or crook, a great many persons secure certificates who never, in their lives, passed a satisfactory examination.

The theory of our law requiring teachers to hold a county or state certificate showing qualification is, that without the barrier of an examination, incompetent persons would occupy the teacher's office. In so far then as incompetent persons secure certificates despite this barrier, the purpose of the law is defeated; and, in so far as competent teachers are re-examined simply because the law permits or requires it, no benefit results, but a needless burden is imposed upon the teachers.

If none but the scholarly and well prepared were to seek positions as teachers we might abandon examinations altogether and have free teaching, i. e., teaching without certificates. But with the conditions as we have them—with multitudes of the illy prepared clamoring to enter the teachers' ranks—examinations become a necessity. But, they are a necessity only for those whose scholarship and general fitness for the teachers' office are not

fully determined. That is to say, after a teacher by an honest entrance examination demonstrates that she possesses adequate scholarship, and then by practical experience in teaching demonstrates her ability to govern and instruct youth and is withal a student and actively interested in the educational movements of her city or county, there is little reason for calling her before the county superintendent once a year to find out whether she has forgotten anything or has learned anything new.

I have a very high opinion of the integrity and ability of the county superintendents of Iowa. There is, doubtless, not one of them who does not earnestly desire to deal justly with every applicant and to issue certificates to those candidates only who are fully prepared for the work of teaching. But the superintendent who attempts to adhere strictly to a high and uniform standard is so beset by friends of illy prepared candidates that official life becomes a burden and under the pressure it would not be surprising if the less resolute should stifle convictions and yield at this point and that, and thus subject the schools to the rule of immaturity and inefficiency.

Former State Superintendent Harvey of Wisconsin in one of his excellent reports says that 90 per cent of the county superintendents of that state, in the year 1900, bore testimony to the fact that they were unable to limit the issue of certificates to people whom they believed to be thoroughly qualified for the work of teaching; that they were beset by political influence demanding that certificates be issued to friends and relatives of the political supporters of this officer without reference to qualifications.

Wisconsin is not Iowa, but if this condition existed in 90 per cent of the counties in Wisconsin in 1900, may it not exist to some extent in some of the counties of Iowa in 1904. I contend that it is both impolitic and unjust to subject the county superintendent to this tremendous pressure.

It is evident to any one familiar with the facts that the standard in some counties is very much higher than in others. We may now have ninety-nine standards in this state, and the standard in any county may be changed whenever a new superintendent is installed in office. And the law recognizes this in that it does not permit any recognition in one county of a certificate issued in another county. It is not even permissible under our law, as it is interpreted by the attorney-general, to have an examination written in one county and have the manuscripts forwarded to another county for grading. The county line in Iowa, so far as certificates are concerned, is an absolute barrier.

But our present system not only gives us varying standards and subjects our county superintendents to the persistent importunity of unqualified persons who seek certificates, but it requires that the superintendent devote time to this work that he could more profitably spend out among the schools, inspiring teachers and pupils and creating a healthy school sentiment among the people. I am aware that many people believe the county superintendent has two essential duties: one to examine teachers and the other to draw his salary. But some of the live county superintendents of the state are demonstrating their greater value in awakening teachers and pupils and patrons to their best endeavor for the improvement and strengthening of the schools.

In such counties it is a distinct loss to the school to withdraw the superintendent from this essential work and set him to poring over examination papers. In more than 80 per cent of the counties of Iowa examinations are held every month, as prescribed by law, and sometimes two or more examinations are held in the same month. The week following most of these examinations, is largely devoted by the superintendent to reading manuscripts and in making out and mailing returns. Last winter I asked our county superintendents to state the number of days spent each year in this work, and from the answers received, I find that the average is fully fifty days a year for each county. Indeed, the time spent would be much more were it not for the fact that in more than four-fifths of the counties of Iowa the institute instructors assist in reading and marking manuscripts written at the beginning or close of the summer institute. But this class of help is expensive, costing the counties from five to ten dollars per day for each person so employed. So it comes about that the examination of teachers in this state is attended with very considerable expense.

Now, instead of this county system with its many inherent weaknesses, it is proposed to adopt the state system of qualifying teachers.

The essential differences would be, first, in the number of examinations; second, in the persons who would mark the examination manuscripts; and third, in the value of the certificate issued and its effect on standards and salaries.

Instead of having examinations every month of the year, there would be four examinations. Two of these would be held in the summer—one in June and one in July. A third examination would be held in October for the accommodation of those deprived of attendance upon a summer examination, or who were to teach the winter term only. Then, for emergency cases, a fourth examination would be assigned for February. So, with examinations the last of February, June, July and October, the entire body of teachers in any county could be accommodated quite as well as with twelve examinations, as now provided by law. The examinations would be conducted in the several counties under the direct supervision of the county superintendent as at present. At the conclusion of the examination the county superintendent would forward all the manuscripts, with possibly one exception, to the office of the state superintendent, and the scholarship of each applicant as shown by the examination manuscripts would then be determined by readers appointed by the state board of educational examiners. The certificate issued would be effective in any county of the state, when registered with the county superintendent and receiving his official signature. Under this system a standard uniform for this state would be secured; county lines, so far as certificates are concerned, would disappear, and the value of the certificate would be greatly increased in that it would be practically a state certificate. And, further, an incentive would be held out to teachers in that the higher class of certificates would be subject to renewal solely on the condition of continued successful teaching. The effect of such a law would be seen in a raising of the standards and in an increase of the salaries of teachers.

We have heard much of low salaries of teachers in Iowa, and the demand for better salaries has been repeatedly made through the press and from the public platform. Most of our teachers are underpaid. We will all agree to

that proposition; but I say to you that there are teachers who would be over-paid at any salary.

The strong teacher is in a sense in competition with the weak. It is, therefore, to the interest of the good teachers and to the interests of the people and of the people's children that the poor and incompetent teachers be eliminated.

I want to see the time in Iowa, and I hope I may see it very soon, when the strong, successful teacher can demand reasonable wages for her services, and when she can say to the school board: "If you do not wish my services at a fair salary, I will teach somewhere else." She can do this when her certificate is good in any county and when there are more schools hunting teachers than teachers hunting schools.

Fortunately we are not left in doubt as to the practical workings of a system such as I have suggested. For ten years New York has had the state system of licensing teachers. Minnesota has had such a system five years, and South Dakota two years. The reports I have received from each of these states commend the system as satisfactory and as a great improvement over the old method of county certification.

Since the conditions prevailing in Minnesota and Iowa are not greatly different, a law that works well there ought, if adopted, to work well here. I want, therefore, to read to you the testimony I have received from a few of the leading county superintendents of Minnesota. I will read brief extracts only to show the general trend of the answers received to my questions as to whether the law was satisfactory and whether it had tended to raise the standard of teaching. Every superintendent to whom I wrote made reply, and 95 per cent of them commend the law as just and eminently satisfactory.

Supt. Geo. F. Howard, of Rochester, says:

It secures uniformity of certificates throughout the state, and teachers are not caused trouble and expense to secure another certificate when they cross county lines to teach as many do. It takes the marking of the papers out of the hands of the county superintendent and relieves him of a large amount of drudgery. It eliminates the matter of favoritism in the granting of certificates, which is one of the greatest evils of the county system of certification. It raises the standard of both teachers and schools and, combined with special aid to rural schools, is doing more to elevate our schools to higher and better things than any other agency that has ever been at work in our state.

Supt. G. E. Parkhill, Fergus Falls, says:

Otter Tail county, the largest in the state in number of school districts, employs about three hundred teachers. Eighteen of this number hold county certificates granted upon private examination. This was made necessary last fall on account of a shortage of teachers. Otherwise every teacher in the county holds a regular state certificate granted by the state superintendent of public instruction. We have always had training schools and still have a six-weeks' summer school and four county teachers' meetings yearly, yet nothing has so effectually raised the standard of our whole teaching force as has our strict observance of the spirit and letter of our present certificate law. The privileges granted under our present law for the issuing of local certificates should be trimmed again. We are now ready for more rigid uniformity and equality in the licensing of teachers.

You will see by the above paragraph that we are willing to go on record for a still higher standard of qualifications and that this standard can be best obtained by a more rigid law for the examining and licensing of teachers.

Supt. Martin L. Pratt, of Granite Falls, says:

The strongest point in favor of the law is that the teacher must depend upon his own exertions, and not on his political influence, in order to get a certificate. There can be no valid objection to the law. It is fair and impartial.

Supt. Fanny G. Gies, of Austin, says:

I believe the work of the rural schools in any state would be improved by the state licensing of teachers. There will be opposition at first from some of the best county superintendents who had high standards and ideals and felt that their authority may be curtailed, and of course opposition from that class of superintendents who occasionally use the granting of certificates for political purposes. But this opposition will soon die out, as it has here, when the majority realize that the standard for teachers of the state as a whole is gradually being raised through this system.

Supt. F. L. Williams of Watertown says:

I am well pleased with it. It has now been in force for more than four years and in that time it has accomplished much good.

First, it has practically done away with political grafting.

Second, it has increased the standard of education among our teachers, permitting them to prepare on a special line of work instead of a constant repetition of all the common branches.

Third, it has had a tendency to raise the wages of the teacher. I believe the wages in my county have increased from 12 to 15 per cent since its passage. I see no serious drawbacks to the law at present.

Supt. Geo. D. Goodrich, of Anoka, says:

The advantages of the Minnesota law may be summarized under five heads:

First—Absolutely impartial, or as nearly so as human arrangement can be.

Second—Uniformity throughout the state.

Third—Certificates are good anywhere, and teachers can take the examination wherever it is convenient.

Fourth—The county superintendent is relieved from the criticism or enmity of those who fail; also from the work of looking over the papers, and has more time for other important school matters.

Fifth—The work of examination is put largely in the hands of experts who have usually been broad minded people of sense and judgment, as well as culture.

Supt. S. J. Race, of Redwood Falls, says:

We have never had such excellence, such fairness, such uniformity and such completeness, as now exhibited in the Minnesota state certificate law. The law, while only in operation six years, has raised the standard of teaching and teachers' scholarship fifty per cent. There can now be no partiality, nor political unfairness in teachers' certificates.

Supt. Julius Boraas, of Red Wing, says:

The system of state examinations for teachers has established uniformity throughout the state, done away with 'pull' and local influence in securing certificates, and elevated the standard of teaching as a whole. It provides for a reasonable system of renewals placing teachers on a more permanent basis than before. Though there are defects in the system they are far less numerous than those of the old county system.

Supt. Mary A. Hanson, of Detroit, says:

After four years of state examination and licensing of teachers, the result manifest in our county is a constantly rising standard of scholarship in the teaching force, and a larger percentage of our teachers attending normal and other higher institutions of learning, in order to meet the requirements.

Supt. G. M. Cesander, of Winthrop, says:

The Minnesota law relative to the examining and licensing of teachers has given a universal satisfaction throughout the entire state.

It has established under the careful supervision of the department of public instruction a uniformity of grading and marking examination papers. I know of no other plan which would be more complete and more accurate as an impartial test of the applicant's scholastic qualification.

Supt. G. C. Borchardt, of Madison, says:

It has in this county raised the standing of the teachers over 83 per cent, I am sure. We have better and stronger teachers as a result of the law. The average salary of teachers in this county for this year will be \$44 per month. I can truthfully say that it is my experience that a teacher who can not pass our examination is not prepared to teach in the schools of the state, or any other state, for that matter.

Supt. W. E. Freeman, of Mankato, says:

It has been my observation that the state system of marking teachers' examination papers has raised the educational standard of the teaching force of the state and has dignified the calling. Some tax-payers object to the state system because teachers are demanding and receiving higher salaries. Such objections are not founded on good grounds for the superior scholarship and better work of the present teaching force of this state demand a higher salary than was paid five years ago.

Such is the testimony of men, many of whom have had experience as officers under both systems and all of whom, because of their official positions, and their professional standing, are well qualified to speak with authority on this subject.

The teacher who is prepared for her work should welcome the change proposed. The examination questions would be no more difficult than those that have been furnished by the state department of education for the past twenty years. The only difference would be a more critical reading of the answer papers, and a possibly closer marking. I am perfectly well aware that a great wail would go out from those unable to pass the state examination; but for such there would be one remedy only, and that, to become proficient in the branches of study covered by the examination. To those sufficiently well informed in a subject to teach it successfully, an examination would have no terrors.

Should the marking of examination manuscripts come under state authority, the greatest care would be exercised to secure a perfectly fair return for each applicant. Aside from the readers, who would be carefully selected, a review board would be retained to re-read the papers of those candidates who fail by a small margin or who fail in one or two subjects. Teachers would also be given the privilege of combining the results of two consecutive state examinations. That is to say, if one examination were successful in a part of the subjects, it would not be required of the candidate to write on the same subjects at the next succeeding examination. This is the method followed both in New York and Minnesota. It would seem that with this assurance any qualified teacher would feel safe under the state system, and since it opens the way to professional recognition in a manner not possible with our present county system of certificating teachers, our best teachers should, in my judgment, welcome this change, and should use their influence to bring it about.

The legislation I have outlined in this address will, I believe, commend itself to the good judgment of the men who will constitute the membership of the Thirty-first General Assembly to meet early in 1906. But no important school legislation can be expected except as the strong teachers and superintendents of the state stand united in its earnest advocacy.

I have, therefore, presented to you, at this early date, proposed changes in our laws governing examinations in the hope that a candid consideration of the same may enlist your hearty support.

FREQUENT EXAMINATIONS NOT NECESSARY.

The Iowa law requires that the county superintendent devote the last Saturday of each month and the Friday preceding to the examination of teachers.

Taking the average for the state the examinations held in the different months are attended as follows:

January.....	8+	per cent of all the applicants for the year.
February	5+	" " " " "
March.....	10—	" " " " "
April	4+	" " " " "
May.....	1+	" " " " "
June	7—	" " " " "
July.....	13—	" " " " "
August	83—	" " " " "
September.....	9—	" " " " "
October.....	5—	" " " " "
November	5—	" " " " "
December	5+	" " " " "

Four examinations would serve all interests quite as well. If the teachers of the state were made to know that the examination could be taken *only* the last of February, June, July or October, they could attend *one* of these examinations. Minnesota and South Dakota get along very well with two examinations for the year, while the great state of New York has but four examinations.

A CHANGE NEEDED IN OUR LAWS GOVERNING THE EXAMINATION AND CERTIFICATION OF TEACHERS.

1. The number of examinations should not exceed four in any one year.
2. The county superintendent should be required to conduct examinations under rules prescribed by the superintendent of public instruction, using state lists only.
3. The county superintendent should not be permitted to admit to the examination any person morally or physically unfit to have charge of children and youth.
4. The county superinfendent should be required by law to forward all answer papers, except the papers in theory and practice of teaching, to the superintendent of public instruction immediately upon the completion of the examination, said papers to be read and graded by readers appointed by the superintendent of public instruction or by the state board of educational examiners.
5. The county superintendent should be required to grade all papers in theory and practice of teaching, taking into consideration the knowledge he may have of each applicant's success as a teacher or fitness for teaching other than scholarship. He should also examine each applicant in oral reading, his markings in theory and practice of teaching and in oral reading to be forwarded to the superintendent of public instruction not later than one week after the close of the examination.

6. An applicant passing a successful examination should receive a certificate signed by the superintendent of public instruction, the same to be valid in any county in Iowa when countersigned by the county superintendent of that county.

7. The life of a certificate should be longer than now permitted by law, and reasonable provision should be made for the renewal of first-class certificates.

8. In any change made in the method of examining and certifying teachers, adequate support of the county institute fund should be maintained.

"The uniform certification law has exceeded the most sanguine expectations of this department in its effects upon the standard of the teaching force of the state. In fact it has produced a veritable revolution in its brief history. * * *

The new law dignifies the profession of teaching, places every candidate entirely upon his merits, destroys all possibility of favoritism and gives to the worthy teacher a credential in which he may take pride, and which is good, or may be made good, in any county of the state."

HON. G. W. NASH,
State Superintendent of South Dakota.

"It is everywhere conceded that the present plan has decided advantages over the old one, where every county superintendent had a standard of his own, or no standard."

HON. J. W. OLSEN
State Superintendent of Minnesota.

=====

SCHOOL BUILDINGS AND GROUNDS.

=====

SCHOOL BUILDINGS AND GROUNDS.

"Children as well as older people are affected by their environments, and nowhere is this more clearly shown than in the schoolroom. The silent beauty radiating from the harmoniously tinted walls and ceilings; from beautiful decorations consisting of pictures, casts and plants, quickens and purifies the taste. Such beauty of surroundings has a subtle, silent, ethical influence which is not so much seen as felt."

INTRODUCTION.

The past twenty years has witnessed a marked advance in school architecture in our larger towns and cities. In many country districts, as well, great care is taken in the construction, ventilation and lighting of the schoolhouse; but in more cases where the smaller schoolhouse is to be erected, little effort is made to secure architectural beauty or improved methods of construction. Many country school boards do not secure plans and specifications from an architect because of the expense involved. As a result, the new schoolhouse is likely to be built on the general pattern of the old one it displaces.

The following pages have been prepared to assist country school boards in the important work of schoolhouse construction. A number of cuts are shown. A low price for complete plans and specifications of each, including the blue prints, can be secured from the architects. For information, the county superintendent should be consulted.

I can not urge too strongly the need of an enlightened and liberal policy in schoolhouse construction to the end that the schoolhouse be attractive in appearance and scientifically constructed. It may require a few dollars more to secure such a schoolhouse, but it should be remembered that the district is building for half a century at least, and only the best should be considered. The schoolhouse with its surroundings should be the most attractive place in the district, in which every child and every patron will take pride. And the schoolroom should not only be inviting, but it should be so ventilated, lighted and heated that the physical health and mental energy of the children shall not be impaired.

RURAL SCHOOL ARCHITECTURE.

(The articles on "School Site," "School Building" and "Ventilation" were prepared by Mr. W. H. Gemmill, Superintendent of Dallas Center Schools.)

THE SCHOOL SITE.

In selecting a site, the area of the lot, the elevation, the character of the soil, the drainage, the direction of the slope, and the central location, should be considered. No school ground should ever contain less than one acre, with a frontage of 180 feet and a depth of 240 feet. In the larger con-

solidated district it should contain not less than two, and may very properly contain three acres. If possible it should be an elevated piece of ground, a small knoll, or a gentle slope, and the drainage should be away from the yard and house. The soil should be light, dry and porous. A sandy or gravelly subsoil affords the best drainage, while an eastern or a southern slope secures rapid evaporation. Under no circumstances should the stratum be clay impermeable to ground water. It is desirable that the schoolhouse should be located near the geographical center of the district, and the board should select the site with this in mind; but the site should be high and dry and the brightest and most beautiful spot near the center. Under no conditions should pleasant and wholesome surroundings be sacrificed if a better and more suitable site can be secured some little distance away. The additional distance in traveling will be labor well spent, if thereby, the pupils are placed in more beautiful and inspiring scenes.

The house should be placed in front of the center with the play ground in the rear. Where the house is heated by a furnace, the fuel supply should be stored in the basement. If there is no basement, a small building for fuel should be erected at the rear of the schoolhouse.

SCHOOL BUILDING.

The foundation walls of the schoolhouse should be brick or stone, and extend a little below "frost line." The walls should be at least one foot in thickness, and extend about three feet above the surface. It is usually well to have a vertical air chamber; and if there is no basement suitable ventilators should be provided on each of the four sides so as to permit of thorough ventilation of the space between the surface and the floor during the summer months. Good shutters should be provided for these openings in order that the winter's cold may not affect the air within the room near to the floor.

It would also be a step in the right direction if there were a basement under the entire building, partitioned into a furnace-room, a work shop, and a kitchen. Adequate, but inexpensive tools for manual training can be bought for twenty-five (\$25) dollars. Here the boys would learn to construct simple things in a scientific manner, and even supply the apparatus necessary for the school. A good stove and some kitchen utensils would be sufficient for the teaching of the simple principles of domestic economy. These are practical things, and by their introduction we are but meeting the crying demands of the hour.

The basement should be about 8 feet high, and should be well supplied with cupboards, shelves, tables, etc.

"The house should be simple in construction, yet dignified in its adornment, and devoid of all attempts to be elaborate in appearance," writes an architect.

As a traveler passes through Iowa, he soon learns that white is the dominating color of our schoolhouses. Why this simple color is used so generally, we do not know; but we are confident that a more attractive building may be secured at no increase in the cost if other colors were used. The following has been suggested:

"Colonial style of light yellow with white trimmings makes an excellent combination at once pleasing to the eye. Also gray tints and darker trimmings, or light yellow with

dark green trimmings are both beautiful and reasonable in price. Plain walls and green blinds make a picture both attractive and pleasing."

VENTILATION.

"The simplest and most efficient form of ventilation for rural schoolhouses is a cold air box from an opening in the foundation wall, under the floor to a point immediately beneath the stove. It should be as short and direct as possible. The fresh air conduit should be covered at both ends with coarse wire, and in the shaft screens placed so as to exclude the flies. The opening beneath the stove should be provided with a slide which may be completely closed when the room is swept."

"The stove should be surrounded by a Russia iron jacket, fastened to the floor and extended 8 inches above the stove. By this means, fresh air is admitted into the room in any required volume, and passed near the stove in such a way as to be warmed before passing throughout the room."

The register opening into the ventilating flue, or chimney, should be about two feet square, and about two inches from the floor.

Any schoolhouse provided with this simple appliance, will be reasonably well ventilated at all times when the stove is used for heating purposes. During the remainder of the year ventilation can be secured by opening the doors and windows.

The chimney and ventilating flue should be built together.

Many rural schoolhouses are now heated by furnaces, and when properly equipped the subject of ventilation ceases to be a complex problem.

OUTHOUSES.

For rural schools the outbuildings should be located in the rear of the lot and as widely separated as possible. They should be screened from observation. A row of White Spruce or Red Cedar properly placed will make an effective screen in a few years and will add to the beauty of the place. In eastern Iowa, Arbor Vitæ may also be used. The closets and urinals should be so constructed as to provide for the separation of pupils using them, and they should be provided with vent flues so arranged that all foul odors and air will be carried out below the breathing line.

Inside walls and ceilings should be covered with matched boards and both the inside and outside should be thoroughly sand painted to prevent markings. In each of the buildings one seat should be provided so low that young children may occupy it and still rest the feet on the floor. These buildings should be well built. They should be raised at least one foot above the ground and placed on substantial foundations. The vault should be of cement or brick and made water tight. It should extend one foot beyond and in the rear of the building. The vault floor should slope toward the rear to facilitate cleaning, and the projection of the vault at the rear should be closed by a tightly fitting door secured by a lock. The contents of the vault should be frequently covered with dry earth, dry ashes or chloride of lime, and the vault should be cleaned at least once a year and thoroughly disinfected.

WATER SUPPLY.

Every school building should be supplied with pure water.

The well should be sunk on high ground and every possible precaution used to prevent contaminating matter of any kind reaching the water sup-

ply. If the well is of the ordinary type, the upper three feet should be built of hard brick laid in cement; and the top be securely covered. The water that has stood in the well through the long summer vacation should be pumped out a day or two before the school opens in the fall.

LIGHTING.

The schoolroom should be lighted by windows placed in the rear and side walls. Such windows should contain glass surface of not less than one-fifth of the floor space of the room and all desks and seats should be so arranged that the windows will be on the left and in the rear of the pupils. The room should be of sufficient size to allow not less than fifteen feet of floor space and not less than 180 feet of air space for each pupil.

SEATING.

In schools where two or more sizes of school desks are required, each separate row should contain desks of a uniform size. The prevalent custom in country schools of having four or five sizes of desks in each row—the small ones in front and gradually increasing in size to the rear—can not be too strongly condemned. Under such an arrangement either the desk or the seat will be too high. If one fits the pupil the other will not. The physical welfare of the child requires an arrangement of desks in ungraded schools as indicated below.

Single desks should be used and in the one room country school five sizes are usually required as follows:

Single Desks.					
Size.	Height of Seat.	Width of Top.	Length.	Floor Space.	Age Accommodated.
B	15 inches	15 inches	24 inches	81 inches	17 to 20
C	14 inches	14 inches	21 inches	27 inches	13 to 17
D	13 inches	13 inches	21 inches	27 inches	10 to 13
E	12 inches	12 inches	18 inches	26 inches	7 to 10
F	11 inches	12 inches	18 inches	26 inches	5 to 7

In placing the desks the following rule should be strictly followed:
For first primary pupils (size F desk) place the edge of the desk next to and in front of the child 9 inches from the back of the seat in which he is seated. For size E desks this distance should be 10 inches; for size D, 11 inches; size C, 12 inches, and size B, 13 inches.

BLACKBOARD.

The blackboard should be three feet six inches wide. Slate is recommended. It will cost more at the outset, but since no repairs will ever be required it is the cheapest in the long run. In ungraded schools the bottom of the blackboard should be two feet six inches from the floor. If the room is to be used exclusively for primary pupils, the bottom of the blackboard should be two feet from the floor, and if exclusively for advanced grades it should be three feet from the floor. The blackboard should extend entirely around the room, except in the spaces occupied by the doors and windows.

HIGH SCHOOLS.

LIST OF SCHOOLS FULLY ACCREDITED TO THE STATE UNIVERSITY AND OTHER STANDARD COLLEGES OF IOWA.

PUBLIC SCHOOLS.

Ackley.	Des Moines, North.	Lake Mills.	Rockwell City.
Adel.	Des Moines, West.	Lamoni.	Rock Rapids.
Albia.	Dubuque.	Le Mars.	Rolfe.
Algona.	Dexter.	Lenox.	Sac City.
Alta.	Dows.	Leon.	Sanborn.
Ames.	Dunlap.	Lisbon.	Sheldon.
Anamosa.	Eagle Grove.	Lyons.	Shell Rock.
Atlantic.	Eldon.	Malvern.	Shenandoah.
Audubon.	Eldora.	Manchester.	Sibley.
Avoca.	Elkader.	Manning.	Sidney.
Bedford.	Emmettsburg.	Maquoketa.	Sigourney.
Belmond.	Escherville.	Marengo.	Sioux City.
Boone.	Fairfield.	Marion.	Sloan.
Britt.	Forest City.	Marshalltown.	Spencer.
Brooklyn.	Fort Dodge.	Mason City.	Spirit Lake.
Burlington.	Fort Madison.	McGregor.	Storm Lake.
Capital Park, Des Moines.	Garden Grove.	Missouri Valley.	Stuart.
Carroll.	Garner.	Montezuma.	Tama City.
Cedar Falls.	Glenwood.	Monticello.	Tipton.
Cedar Rapids.	Glidden.	Mount Ayr.	Toledo.
Centerville.	Greene.	Mount Pleasant.	Traer.
Chariton.	Greenfield.	Muscatine.	Valley Junction.
Charles City.	Grinnell.	Nashua.	Villisca.
Cherokee.	Grundy Center.	Nevada.	Vinton.
Clarinda.	Guthrie Center.	New Hampton.	Walnut.
Clearfield.	Guthrie Co., Panora.	Newton.	Wapello.
Clarion.	Hamburg.	Oak Park, Des Moines.	Washington.
Clear Lake.	Hampton.	Odebolt.	Waterloo, East.
Clinton.	Harlan.	Oelwein.	Waterloo, West.
Culfax.	Hartley.	Onawa.	Waukon.
Columbus Junction.	Hawarden.	Orange City.	Waverly.
Corning.	Holstein.	Osage.	Webster City.
Corydon.	Humboldt.	Osceola.	West Liberty.
Council Bluffs.	Ida Grove.	Oskaloosa.	West Union.
Cresco.	Independence.	Ottumwa.	Wilton.
Creston.	Indianola.	Parkersburg.	Williamsburg.
Dallas Center.	Iowa City.	Pella.	Winterset.
Davenport.	Iowa Falls.	Perry.	
Decorah.	Jefferson.	Postville.	
Denison.	Keokuk.	Red Oak.	
Des Moines, East.	Knoxville.	Reinbeck.	
	Lake City.	Rockford.	

PRIVATE SCHOOLS.

Cathedral School (Sioux City).	Mount St. Joseph Academy (Dubuque).	St. Mary's High School (Iowa City).
Cedar Valley Sem. (Osage.)	Nora Springs Seminary.	Washington Academy.
Charles City Col. Academy.	Northwestern Class'l Acad. (Orange City).	Wilton German-English Col.
Decorah Institute.	Sac City Institute.	Whittier College (Salem).
Denison Normal School.	St. Agatha's Sem. (Ia. City).	Woodbine Normal School.
Epworth Seminary.	St. Frances Academy (Council Bluffs).	St. Katherine's (Davenport).
Howe's Acad. (Mt. Pleasant.)		
Iowa City Academy.		
Jewell Lutheran College.		

PARTIALLY ACCREDITED PUBLIC SCHOOLS.

Adair.	Eldon.	Mapleton.	St. Ansgar Semin'y.
Allerton.	Elkader.	Mechanicsville.	Shelby.
Alton.	Farmington.	Milton.	Sioux Rapids.
Anita.	Fayette.	Morning Sun.	Springdale.
Bloomfield.	Fonda.	Moulton.	Springville.
Brighton.	Fontanelle.	Neola.	State Center.
Charter Oak.	Grand Junction.	New Sharon.	Tabor.
Coon Rapids.	Hubbard.	North English.	Winfield.
Correctionville.	Keosauqua.	Northwood.	
De Witt.	Kingsley.	Riceville.	
Dysart.	Lime Springs.	Richland.	

HIGH SCHOOL FACULTIES.

College Preparation, Experience, Number Employed,
Recitation, Periods, Degrees.

Institutions Attended One or More Years	Attendance, number-years-number teachers-experience, years, periods.									
	Four- year.		Three- year.		Two- year.		All Classes.			
							Number.	Average.	Number.	Average.
Colleges and Universities of Other States	419	8.7	81	2.5	1	1.5	20	2.4	511	2.7
Iowa State Normal.	291	2.5	61	2.5	8	2.2	5	2.2	459	2.1
Other State Normals.	77	3	14	3	7	2	2	2	108	2.4
Other Institutions Above High School Grade.	76	2.2	2	2.1	12	2.0	115	2.0	115	2.0
*Total by Institutions	1,511	8.	231	2.5	75	2.3	1,542	2.0	1,542	2.0
Teachers-experience-recitations.										
Number of different teachers included in above report.	1,200	8.7	214	4.3	96	2.6	1,487	2.6	1,487	2.6
Number having experience	1,037	5.4	200	4.3	74	4.	1,311	5.1	1,311	5.1
Number reporting no experience.	803		60		22		885		885	
Total number of teachers employed	1,870		260		96		1,726		1,726	
Average number of recitations per teacher	5.6		11		12		6.8		6.8	
Number of schools reporting	301		170		80		550		550	
Degrees Held.										
Number holding Ph. D. degree	5		1						6	
Number holding A. M. degree	54		7		1				62	
Number holding A. B. degree	234		30		2				266	
Number holding M. S. degree	16								16	
Number holding Ph. B. degree	237		8		8				253	
Number holding B. S. degree	127		16		3				146	
Number holding M. O. degree	63		22		4				94	
Number holding B. D. degree	121		40		18				179	
Number holding L. L. D. degree			1						1	
Number holding D. O. degree			1						1	
Number holding B. L. degree	23		1						24	
Number holding B. M. E. degree	1								1	
Number holding M. D. degree	2								2	
Number holding M. L. degree	2								2	
Total number of degrees held	600		8		20		1,057		1,057	

THE HIGH SCHOOL COURSE OF STUDY.

High schools are organized in this state under section 2776 of the Code which states that the board of directors of any school corporation "shall have power to maintain in each district one or more schools of a higher order, for the better instruction of all in the district prepared to pursue such a course of study, and it may establish graded or union schools and determine what branches shall be taught therein, but the course of study shall be subject to the approval of the superintendent of public instruction."

It was doubtless the intent of the legislature that there should be something of uniformity in high school courses, hence the requirement that such courses be approved by the superintendent of public instruction. But after courses are once adopted whether with or without official approval, modifications are frequently made solely upon the motion of city superintendent, high school principal or school board. Something of the confusion that has resulted is shown in the detailed report on high school courses of study set out in the pages that follow.

The high school manual issued five years ago by the Iowa State Teachers' Association presented a four year latin course that is now followed more or less closely in a large number of our four year high schools. But aside from this there is little semblance of uniformity in the high school courses offered.

With the hope to formulate courses of study suitable for the various classes of high schools, a number of Iowa school people representing every phase of educational work above grammar grades, were recently asked as to what should be included in a two year, three year and four year course of study. The replies made show the widest divergence of opinion. Hence only a few general directions, on which there is substantial agreement, will be given.

Educators are fairly well in accord on the following points:

1. High school teachers should have training representing at least four years of college or normal school work above high school grade.

2. A four year course above grammar grade should not be attempted in districts where the assessed valuation is much or any below \$200,000, or where fewer than three thoroughly prepared teachers, devoting full time, can be employed.

3. A three year course will require the services of two teachers on full time. In both the four year and three year high schools additional teachers will usually be required if two or more courses are offered.

4. In all high schools the recitation periods should never be less than thirty-five minutes each and they should, if possible, be forty or forty-five minutes each. No subject should be pursued for less than eighteen consecutive weeks, and very few subjects should be pursued for less than a full school year of thirty-six weeks.

5. Every two year high school course should contain eight year units of work, every three year course twelve year units of work, and every four year course sixteen year units of work,—a unit of work being understood as one year's work of one period a day, or 180 or more recitations.

6. (a) In every high school offering a two year course of study the following should be required:

Algebra, one unit.

English, two units.

History, one unit.

Science, one unit.

Civics, one-half unit.

(b) In every course offered in a three year high school there should be required in addition to "a"—one year of plane geometry, and an additional year of English.

(c) Every course offered in a four year high school there should be required in addition to "a"—one year of plane geometry, an additional year of English, and an additional half-year of history.

7. The additional work needed for any course may be selected from the following options:

Algebra, one-half unit.

Algebra review, last half of senior year, one-half unit.

History, one unit.

Economics, one-half unit.

Physiology, one-half unit.

Science, one unit.

English, one unit.

Solid Geometry, one-half unit.

Bookkeeping, one-half unit.

German, two to four units.

Latin, two to four units.

Review of common branches in senior year, one unit.

Manual Training, one unit.

The following courses are suggested for guidance only. Educators are not fully agreed on any one of the courses in its entirety:

A TWO-YEAR COURSE OF STUDY.

NINTH GRADE.

FIRST SEMESTER.

English,
Algebra,
Civics,
Physiology,

SECOND SEMESTER.

English.
Algebra.
U. S. History.
Botany or Zoology.

TENTH GRADE.

English,
Algebra or Physics,
Economics,
General History.

English,
Physical Geography or Physics,
Arithmetic Review,
General History.

Note 1. The work in English for the first year may include Grammar, Composition and Literary Readings; and for the second year, Composition and Rhetoric, and English Classics.

Note 2. If Physics is given a place in the course, it should be for the entire school year.

A THREE-YEAR COURSE OF STUDY.

(From Bulletin of the State University.)

COURSE OF STUDY.

NINTH YEAR.

FIRST SEMESTER.

ENGLISH.
{ LATIN or
{ GERMAN.
ALGEBRA.
{ Physiology or
{ Zoology.

SECOND SEMESTER.

ENGLISH.
{ LATIN or
{ GERMAN.
ALGEBRA.
{ Botany or
{ Physical Geography.

TENTH YEAR.

ENGLISH.
{ LATIN or
{ GERMAN.
ALGEBRA

{ GENERAL HISTORY
{ or GREEK HISTORY.

ENGLISH
{ LATIN or
{ GERMAN.
{ Book-keeping or
{ Science.
{ GENERAL HISTORY.
{ or ROMAN HISTORY.

ELEVENTH YEAR.

ENGLISH.
PLANE GEOMETRY.
{ CIVICS or
{ U. S. HISTORY.
{ LATIN or GERMAN or
{ PHYSICS.

ENGLISH.
PLANE GEOMETRY.
{ Higher Arithmetic and
{ Algebra Reviewed.
{ Latin or German or
{ PHYSICS.

A FOUR-YEAR LATIN COURSE.
(From] Bulletin of the State University.)

NINTH YEAR.**FIRST SEMESTER**

ENGLISH.
LATIN
ALGEBRA.
{ Physiology or
{ Zoology.

SECOND SEMESTER.

ENGLISH.
LATIN.
ALGEBRA.
{ Botany or
{ Physical Geography.

TENTH YEAR.

ENGLISH.
LATIN (Caesar.)
ALGEBRA.
{ General History or
{ Greek History.

ENGLISH.
LATIN.
{ Science or
{ Bookkeeping.
{ General History or
{ Roman History.

ELEVENTH YEAR.

English.
LATIN (Cicero.)
PLANE GEOMETRY.
(U. S.) History.

English.
LATIN.
PLANE GEOMETRY.
{ History or
{ Civics.

TWELFTH YEAR.

ENGLISH.
LATIN (VIRGIL.)

Solid Geometry.
PHYSICS.

ENGLISH.
LATIN.
{ Higher Arithmetic and
{ Algebra Reviewed.
Physics.

HIGH SCHOOL COURSE OF STUDY.

Adopted by the Iowa State Teachers' Association,
December 29, 1899.

FIRST YEAR.

Latin, Recitations per week, 5
Algebra, Recitations per week,
English, Recitations per week, 4
History, (Ancient history preferred) 5

SECOND YEAR.

Latin, Recitations per week, 5
Algebra for first half of year, recitations per week, 4
Concrete Geometry, (Option B), half year, recitations per week, 4
English, Recitations per week, 3
History, (Modern or adv. U. S.), recitations per week, 3
Science (from group A), recitations per week, 4

THIRD YEAR.

Latin, Recitations per week, 5
Plane Geometry, Recitations per week, 5
English, Recitations per week, 3
rench, German or Greek (Option A), 5

FOURTH YEAR.

Latin, Recitations per week, 4

English, Recitations per week, 3

Physics, Recitations per week, 4

Political economy, one-half year, recitations per week 3

Civics, one-half year, recitations per week, 3

French, German or Greek (Option B) recitations per week, 5

Options.

Group A—SCIENCE.

SECOND YEAR OF COURSE.—Botany throughout the year preferred; Zoology throughout the year, second choice. A half year of either of these subjects with second half of the year given to Physiography or Physiology or Geology or Astronomy will be accepted, but the one continuous study is decidedly preferred.

THIRD YEAR OF COURSE.—Instead of French, German or Greek, one full year of Botany, Zoology or Chemistry; provided it has not been selected in second year.

Group B—MATHEMATICS.

SECOND YEAR OF COURSE.—Instead of Concrete Geometry, Advanced Arithmetic or Book-keeping may be taken.

FOURTH YEAR OF COURSE.—Instead of French, German or Greek, one-half year of solid Geometry and one-half year of Trigonometry may be taken.

The course contemplates nineteen recitations per week. Music, Free-Hand Drawing or Manual Training may be pursued in addition to these if desired; otherwise there should not be more than twenty recitations of thirty to thirty-five minutes each per week.

A NOTABLE EXPERIMENT.

The following report made by President Seerley, upon request, is commended to the thoughtful consideration of all persons interested in the high school problem.

THE REVISION OF THE PUBLIC SCHOOL CURRICULUM.

A Report Concerning Certain Tests That Have Been Made Regarding the Program of Studies of the Public Schools by the Advanced Training Department of the Iowa State Normal School,
—Wilbur H. Bender, Supervisor.

By Homer H. Seerley, President.

The Character of the Investigation.—For a period of more than six consecutive school years certain revisions of the public school standard curriculum have been in progress, careful tests of the suitability of all new work to the age and the development of the pupils have been made while the effect of all such changes has been observed and noted under the supervision of the Advanced Training School department of the Iowa State Normal School. These investigations have been conducted by Mr. Wilbur H. Bender, the supervisor of that department, having in view the abridgement of the curriculum wherever that is desirable or possible and also the enrichment of the course of instruction of the grammar grades wherever necessary. At the same time, a rearrangement of the branches of study assigned to the high school has been undertaken in order to secure such sequence as adapts all the varieties of the work accepted to the development and the capability of the pupils, endeavoring all the time to save in years of labor to be given and in needless effort to be required without any loss of educational results in either totality of scholarship or of mental development.

The Tests as Applied.—These tests have been given sufficient attention on the part of the training school faculty and have reached over sufficient time to enable such a report to be made as will give assurance that the conclusions announced are safe, reliable and scientific. In all these investigations Supervisor Bender has been materially assisted by expert critic teachers who are capable in qualifications and in experience and are in harmony with him in spirit and in purpose in faithfully carrying out the endeavors so as to reach successfully reasonable and fair conclusions. At the same time the pupils who have pursued this revised curriculum have been regularly admitted to the classes of the Normal School on the same plan as high school graduates and have been required to pursue the same studies in the same classes for a period of more than four years, their power as students and their capability as workers being compared through the reports filed by their instructors during this period. Such students are found to be in all respects equivalent and in some respects superior to those who have graduated from the standard curriculum although their length of time in preparation has been much shorter than that generally assigned to graduates from a high school. These tests have been made by the Normal School in order to determine the kind, quality and sequences of the work that should be adopted for the instruction of pupils in the public schools and a complete outline of what has been accomplished will soon be published for general distribution.

The Theses that are Established.—The following brief statements are made concerning the results that are established by these investigations, it being believed that they are worthy of announcement and that the results obtained are deserving the consideration of all persons who are interested in the improvement of the work of the public schools. They are announced in the form of theses to insure brevity and to make them more easily comprehended by those interested.

1. *Reduction of Time.*—It is definitely established by the tests that it is possible to easily reduce the necessary time of attendance upon the public schools at least a full school year and at the same time prepare the pupils for college studies better than can be accomplished as the present-day standard curriculum is arranged and managed in the best schools.

2. *Reorganizing Grade Work.*—This result of saving the time of the pupils by at least one school year has been

accomplished by suspending the subject matter of the studies commonly allotted to seventh and eighth grades until a more convenient season, and by substituting therefor such secondary school studies as are known to be adaptable to the age and the capability of such pupils. Whenever any of the work of the standard seventh and eighth grades is taught it is done because there are certain phases that are regarded as suitable and desirable, all such cases the selections are carefully made and the plans of instruction are especially prepared to suit the new curriculum.

3. *Teach Grammar Grade Subjects.*—The standard courses of study, now by custom taught in the public schools to pupils of the seventh and eighth grades, are given sufficient space later in the curriculum of the secondary school at a time when the pupils have reached a mental development and have acquired such capability of initiative and application that the entire subject matter of these studies can be accomplished in much briefer time and with much more satisfactory comprehension of their practicability than is at all possible at the time of life and with the mental immaturity existing at the present with such pupils.

. *German and Latin.*—It is found that language studies, such as are obtainable in German and Latin, when taught in a way conforming to the mental development and to the present knowledge of the pupils, are specially appropriate for the pupils belonging to the seventh and eighth grades. Such work gives the pupils training in the development of vocabulary and in the usages of language so that they are enabled to be more effective in the pursuance of their book studies in the school work that follows. The development of linguistic ability and the acquirement of an extensive vocabulary also gives decided power to scholarship, every one of these students can show.

5. *Suitability of the Languages.*—It is also an established fact that the study of German and Latin is comparatively easier for such pupils than is any of the work now assigned by the standard curriculum to these ages and grades, the cause being that the work as taught is particularly well adapted to their mental development as well as to their personal interest in the success attained.

6. *Benefits to the Discipline.*—It has always been ascertained that such a modification of the work assigned reduces very much the necessity to emphasize and require discipline, as the

pupils so taught are more successful in using their powers and their willing continuance in school at a time when many pupils decline to remain longer under different circumstances shows that they desire to be in school in preference to taking up other work—a very notable result.

7. *The Results Obtained.*—The tests that have been made in these investigations enable the conclusion to be formulated that all the work now assigned to the public school, from the seventh to twelfth grades inclusive, can be readily accomplished in five school years if the curriculum be revised in accordance with these plans and specifications, and that as a result the pupils will be found to be better trained in language, more capable in the pursuance of their studies, more ready in the writing of English and in the preparing of addresses than has been possible in a year longer time using the standard curriculum. This result is due to the adoption of a proper sequence of studies, which conforms to the mental interests and the mental development, enabling the application of the pupils to their school work to be more definite and more effective.

8. *The Supreme Difficulty of the Common Branches.*—Experience has also ascertained that there are no more difficult courses of study in the entire program of studies of the public school than these so-called common branches. These subjects are not only difficult for children as they are also the most decided test for the capability of adults. Advanced arithmetic, technical grammar, including so-called language lessons, the special types of geography commonly selected, the physiology and the United States history usually assumed as appropriate are all of them beyond the capability of children. The examinations that are annually held by the state board of educational examiners also establish the fact that in no line of tests are teachers more incapable of expertness than in the so-called common school studies. This is not due to the fact that they have not given careful attention to them but to the fact that their technicalities are extremely difficult and are not particularly practical or interesting. Since these things are true it is evident that there is no place in the children's school for these difficult lines of study and that it is necessary to postpone them until there is attained the type of judgment, imagination and reasoning that belongs to the adult mind.

9. *Time Required for Common Branches.*—It has also been found possible to get a reasonable knowledge of the common

branches,—arithmetic, English grammar, geography, physiology and United States history in twelve weeks to each subject when the student has reached the right mental development, and that even the acquirements of those limited periods of application are superior to those secured during the entire two years given to the seventh and eighth grades.

10. *What Work is Suitable for Seventh and Eighth Grades.*—There is plenty of subject matter in the kind of studies commonly assigned to the secondary school which is found to be particularly suitable to the demands of the mental condition found in the seventh and eighth grades. Hence, there are numerous solutions that can be made—all of which will be found improvements over the customary assignment. The selection of these studies will depend upon the view point of those in authority, as their ideals and preferences will give strength to different solutions. In this investigation tests have been made that approve the following:—(1) Stories of history, omitting in the teaching the systematic arrangement deemed essential by chronology or logic; (2) Selections from American and English literature, making choices from those things that are specially adapted to the pupils taught; (3) the elements of nature study as found in elementary physiography, natural history, experimental physics and other sciences; (4) suitable work in algebra and involutional geometry; (5) German and Latin.

Such a plan well carried out makes progress a reality, teaching a pleasure and the pursuance of such work a blessed opportunity to pupils—a remarkable change from present day experience with the standard curriculum.

11. *Other Valuable Work Possible.*—In addition to the amount of work that is necessary to fully give the common program of studies as demanded in the secondary schools, time is now easily found for vocal and instrumental music, free hand and mechanical drawing, manual training, domestic science, physical training and extensive courses of reading in the best books of literature, and that without detracting in the least from any of the requirements deemed essential for graduation from secondary schools.

12. *The Subjects of Supreme Value.*—The tests that have been made during this investigation have called attention to the fact that there are great differences in the value of studies as regards their aid in after education, and that such questions ought to be given proper consideration. It has also been con-

stantly emphasized that well qualified and well trained teachers are of supreme importance beyond all plans and systems. At the same time the teaching that was done during the progress of this investigation at the Iowa State Normal School has been in the hands of senior students under the direction of critic teachers, no student having any class more than twelve weeks. It is evident that better results are obtainable than have been here secured if the teachers were all skillful and permanent and the new curriculum was given an opportunity under the most favorable circumstances. Reason is given to suggest that the entire public school curriculum could be reduced from twelve to ten years for the average pupil under these bettered conditions. But even if one year of work and time is all that is able to be eliminated by this more rational treatment of the curriculum, it is certainly worth while whether the value of time to the pupil is considered or whether the saving of expense to the taxpayer is heeded. There is much chance for improvement in the curriculum, and to this end energy and wisdom of teachers and people should be directed.

EXHIBIT OF THE REVISED CURRICULUM.

AS USED AT
THE STATE NORMAL SCHOOL.

SEVENTH GRADE.

Arithmetic.—This is based upon such simple matters as may naturally come within the experiences of pupils of this age. Attention is given to training in the sensible mastery of essential mechanical processes of the subject, business practices, etc.

Geography.—A study of the leading grand divisions in comparison with North America. Graphic illustration in charting conditions and in making conclusions from statements of facts about other countries measured by the knowledge of our own country.

English.—Literature and some phases of English grammar.

History.—Systematic study of Stories of the Romans and Stories of the English. (These have been preceded in the earlier grades by the Norse Stories, Stories of the Chosen People, and Stories of the Greeks, and a study of the United States through historical stories and biographies of prominent persons.)

Nature and Environment.—Climate, plant and animal life, human life in the community. etc.

German.—Daily work in reading and discussion of simple German stories. All class-room reading and conversation conducted in German and stories read and understood without translation.

Drawing daily, music daily, manual training two periods per week, physical training alternating with other subjects.

EIGHTH GRADE.

Mathematics.—Certain phases of arithmetic continued, simpler parts of algebra as growing out of the arithmetic, one entire term of concrete, inventional or constructive geometry.

English Literature in daily short readings.

History.—Systematic study of the United States History, first from rapid reading of the stories of the Thirteen Colonies and Stories of the Great Republic and then two terms of careful study of text and references in United States History.

Science from environment and a half year on elementary physics.

German.—Continuation of the reading of the previous year with systematic work in German grammar and in written composition.

Latin.—Begin with simple stories, about two-thirds of the year are spent on first year Latin using ordinary first year text. Drawing same as seventh grades.

NINTH GRADE.

Mathematics.—Algebra.

Science.—Physical geography half the year. Physiology half the year.

English —Study of American classics and Shakespeare.

History.—Systematic study of English history and half year on U. S. history from the viewpoint of geographical influences.

German.—Reading and translation German literature with constant attention to grammar. Classroom conversation in German.

Latin.—Finish first year Latin. Read Gate to Caesar and begin Caesar. Manual and physical training and music.

THIRD YEAR OR GRADE.

Mathematics.—Geometry.

Science —Physics.

English.—Composition and rhetoric and literature with some attention to historical development.

History.—General history.

Civics and Economics.—One-half year each.

German.—Reading classics and composition. Continuation of conversational German.

Latin.—Caesar one half year. Virgil one half year. Music, manual training and physical training.

NOTE.—Not all subjects mentioned in these grades appear in all terms. The recitation periods are but thirty minutes, but it seems that thirty minutes with a small class working vigorously are worth more than a longer period with pupils of this age and in larger classes. Some work in the last year is done with no study outside the recitation period by pupils. The study of text and discussion are all given in class periods in subjects selected for such treatment. The most advanced classes when carrying full work put in about three and a half hours per day in recitation. More work is done in the secondary subjects in shorter periods per day because of the better preparation made by the course in the lower grades.

HIGH SCHOOL STASTICS

High school.	Name of instructors.	Number rec. periods.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Albia.....	F. E. George	2	Upper Iowa U. 5 Howard Univ'ty 1	.....	.....
	Maisy Schreiner	6	I. W. U. 4 .....	.....	.....
	Myrta Harlew	6	.....	.....	4 summer terms Univ. of Minn.
	Etta J. Bider	6	S. U. I. 2	I. S. N. S. 2 .....	.....
	Lettie E. Shepherd	6	Hastings College 4 (Nebr.)	.....	.....
Alden.....	Macy Cambell	6	.....	I. S. N. S. 4 .....	.....
	Clementine Rannel	7	Iowa College 3½.	.....	.....
	Mabel Whitney	6	.....	I. S. N. S. 2 .....	.....
Algona ..	Ada E. Smith	7	U. of Minn. 5 .....	.....	.....
	Hilda G. Lundin	7	.....	I. S. N. S. 2½ .....	.....
	Louise McCoy	6	U. of Minn. 5 .....	.....	.....
	M. J. Coate	6	U. of Mich. 2 .....	.....	.....
Allerton ..	J. F. Holliday	6	.....	Mo. State N. 4	Univ. extension work 2 years. ..
	J. R. Jenison	6	Tarkio College 5 .....	.....	.....
	Myrtle Duncan	7	.....	I. S. N. S. 1 term .....	.....
Ackley	Laura M. Graves	7	S. U. I. 4 .....	.....	.....
	Bertha M. Denny	7	Drake 4 .....	.....	.....
Adair	Lula E. Hohanshelt	3	Simpson Col. 5 .....	.....	.....
	Winifred E. Duffy	6	Drake 3	Minn. St. Nor. 1 .....	.....
	Mrs. W. H. Skitt (Music) ..	1	.....	.....	.....
Afton	Geo. D. Eaton	4	.....	I. S. N. S. 3 .....	.....
	Miss Ethel Rundolph	5	U. of Chicago 1 .....	.....	Corning Acad. 2 ..
	Miss Ruby O. Ramedell	7	Iowa College 3 .....	.....	.....
	Miss Elsie Welty	3	.....	.....	Valparaiso 3
Agency ...	O. F. Goltry .....	.....	Drake 4 S. U. I. 3 mo .....	.....	Shen. Nor. Col. 3 mo.
	Olara O. Goltry .....	.....	Drake 1 .....	.....	Chariton Acad. 1.
Akron.....	O. J. Smith	8	.....	.....	North Western Nor. Lemars 4.
	F. S. Schmalle	8	.....	.....	North Western Nor. Lemars 2.

The figure following the name of the institution indicates years attended.

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Alta	L. D. Curtis	5	S. U. I	I. S. N. S. 4 ..	Upper Iowa Uni. 2
	Rose Ferguson	7	S. U. I. 2.	I. S. N. S. 2 .....	.....
	Stella Pence.	4	.....	I. S. N. S. 1 ..	.....
Alton	F. E. Fuller	6	Albion Col. 4 (Mch.)	.....	.....
	Julia Winston	7	Upper Iowa U. 5.	.....	.....
	Ruth Beem	6	.....	I. S. N. S. 1 Sp. Ter.	.....
Ames.	Ethyl Oesna	8	I. S. C. 4 .....	.....	.....
	Margaret W. Cooper.	6	S. U. I. 4 .....	.....	.....
	Ethel B. Randall.	7	I. S. C. 4 .....	.....	.....
	Anna W. Field	7	Iowa Col. 5. ....	.....	.....
	I. J. Scott.	7	I. S. C. 4; Drake 3	.....	.....
	Glendora McCord. ....	.....	Drake 2; I. S. C. 1	.....	.....
	.....	.....	LeLand Sta. 1. ..	.....	.....
	Edeth J. Bailey. ....	.....	.....	I. S. N. S. 2 .....	.....
Anita.	Clara A. Boss. ....	.....	S. U. I. 1½	I. S. N. S. 3 .....	.....
	H. W. Chebrook.	5	Drake 2 .....	.....	Nora Springs 3 ...
	Florence Splith.	7	Drake 3 .....	.....	.....
	Daisy E. Turner.	2	.....	I. S. N. 2½ .....	.....
	Katherine Jenkins.	2	S. U. I. 1 .....	.....	Den. T. S. ½ yr..
Anamosa..	O. E. Buckley.	3	Univ. of Chicago.	I. S. N. S. ....	.....
	Laura Huffman.	6	Cornell. ....	.....	.....
	Harriet Cunningham.	6	.....	I. S. N. S. ....	.....
	Jennie Forward .....	.....	.....	.....	Lenox.
Atlantic ..	Carlos M. Cole.	2	Iowa College 4. ....	.....	.....
	Nellie L. Baldwin.	4	Des Moines Col. ..	.....	.....
	Anna E. Temple	6	Univ. of Chicago	.....	.....
	.....	.....	Mt. Holyoke 4. ....	.....	.....
	Laura Anderson	4	S. U. I. 4. ....	.....	.....
	Carrie Wilken	5	Cornell (Ia.) 4. ....	.....	.....
	Ethel Smith	5	Ohio Northern University 2..	.....	.....
Audubon ..	F. J. Manta.	5	S. U. I 4 .....	.....	.....
	Ella Stearns.	5	.....	I. S. N. S. 3. ....	.....
	Vera Miles.	7	State College 4. ....	.....	.....
	Avis Gordon.	5	S. U. I. 4. ....	.....	.....
Avoca.	M. E. Crosier	3	.....	.....	High Park Col. 1.
	.....	.....	.....	.....	Arm Institute 3.
	Bertha V. Wyant	6	.....	I. S. N. S. 4 .....	.....
	Emma Sherrett.	7	.....	I. S. N. S. 3. ....	.....
	Hester Sanders.	7	Iowa College 4 .....	.....	.....

—FOUR YEAR COURSES.

1

1

1

1

1

1

1

1

HIGH SCHOOL STASTICS

High school.	Name of instructors.	Number rec. periods.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Albia.....	F. E. George	2	Upper Iowa U. 5 Howard Univ'ty 1	.....	.....
	Maisy Schreiner	6	I. W. U. 4 .....	.....	.....
	Myrta Harlew	6	.....	.....	4 summer terms Univ. of Minn.
	Etta J. Rider	6	8 U. I. 2	I. S. N. S. 2.....	.....
	Lettie E. Shepherd ..	6	Hastings College 4 (Nebr.)	.....	.....
Alden.....	Macy Cambell	6	.....	I. S. N. S. 4 .....	.....
	Olementine Runnel.	7	Iowa College 3½.	.....	.....
	Mabel Whitney	6	.....	I. S. N. S. 2.....	.....
Algona ..	Ada E. Smith	7	U. of Minn. 5.....	.....	.....
	Hilda G. Lundin	7	.....	I. S. N. S. 2½.....	.....
	Louise McCoy	6	U. of Minn. 5.....	.....	.....
	M. J. Coate	6	U. of Mich. 2.....	.....	.....
Allerton ..	J. F. Holliday	6	.....	Mo. State N. 4....	Univ. extension work 2 years..
	J. R. Jenison	6	Tarkio College 5..	.....	.....
	Myrtle Duncan	7	.....	I. S. N. S. 1 term	.....
Ackley....	Laura M. Graves	7	S. U. I. 4.....	.....	.....
	Bertha M. Denny	7	Drake 4.....	.....	.....
Adair	Lula E. Hohanshelt	3	Simpson Col. 5..	.....	.....
	Winifred E. Duffy	6	Drake 3.....	Minn. St. Nor. 1.	.....
	Mrs. W. H. Skitt (Music)..	1	.....	.....	.....
Afton	Geo. D. Eaton	4	.....	I. S. N. S. 3.....	.....
	Miss Ethel Rundolph	5	U. of Chicago 1..	.....	Corning Acad. 2..
	Miss Ruby O. Ramedell....	7	Iowa College 3....	.....	.....
	Miss Elsie Welty	8	.....	.....	Valparaiso 3.....
Agency ...	O. F. Goltry .....	..	Drake 4 S. U. I. 3 mo..	.....	Shen. Nor. Col. 3 mo.
	Olara O. Goltry .....	..	Drake 1.....	.....	Chariton Acad. 1.
Akron.....	O. J. Smith	8	.....	.....	North Western Nor. 1. Mars 4.
	F. S. Schmalle	8	.....	.....	North Western Nor. Lemars 2.

The figure following the name of the institution indicates years attended.

—FOUR YEAR COURSES.

Preparation.	High School Courses.
--------------	----------------------

THE

天

**1
F**

EFF

Figure 1

**P
P**

P

B
 22
 23
 24

40
41

● ●

● ●

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Alta.....	L. D. Curtis	5	S. U. I	I. S. N. S. 4 ..	Upper Iowa Uni. 2
	Rose Ferguson.....	7	S. U. I. 2.	I. S. N. 2. 2 .....	.....
	Stella Pence.	4	.....	I. S. N. S. 1 ..	.....
Alton	F. E. Fuller.....	6	Albion Col.4(Mch.) .....	.....	.....
	Julia Winston	7	Upper Iowa U. 5. ....	.....	.....
	Ruth Beem.....	6	.....	I.S.N.S. 1 Sp. Ter.	.....
Ames.	Ethyl Cessna	3	I. S. C. 4 .....	.....	.....
	Margaret W. Cooper.	6	S. U. I. 4 ..	.....	.....
	Ethel B. Randall.	7	I. S. C. 4 .....	.....	.....
	Anna W. Field.....	7	Iowa Col. 5. ....	.....	.....
	I. J. Scott.	7	I. S. C. 4; Drake 3 .....	.....	.....
	Glendora McCord.. ....	.....	Drake 2; I. S. C. 1 .....	.....	.....
	.....	.....	LeLand Sta. 1. ....	.....	.....
	Edeth J. Bailey. ....	.....	.....	I. S. N. S. 2 ..	.....
Anita.	Chara A. Boss. ....	.....	S. U. I. 1½.....	I. S. N. S. 3 ..	.....
	H. W. Chehock.	5	Drake 3 .....	.....	Nora Springs 3 ...
	Florence Spieth.	2	Drake 3 .....	.....	.....
	Jaisy E. Turner.....	3	.....	I. S. N. 3½ ..	.....
Anamosa..	Katherine Jenkins.....	2	S. U. I. 1 .....	.....	Den. T. S. ½ yr..
	C. E. Buckley.....	3	Univ. of Chicago.	I. S. N. S. ....	.....
	Laura Huffman.....	6	Cornell.....	.....	.....
	Harriet Cunningham..	5	.....	I. S. N. S. ....	.....
Atlantic...	Jennie Forward .....	.....	.....	.....	Lenox.....
	Carlos M. Cole.....	2	Iowa College 4....	.....	.....
	Nellie L. Baldwin.....	4	Des Moines Col. ....	.....	.....
	Anna E. Temple	6	Univ. of Chicago .....	.....	.....
	.....	.....	Mt. Holyoke 4.. ....	.....	.....
	Laura Anderson	4	S. U. I. 4. ....	.....	.....
	Carrie Wilken	5	Cornell (Ia.) 4....	.....	.....
Andubon..	Ethel Smith	5	Ohio Northern .....	.....	.....
	.....	.....	University 2.. ....	.....	.....
	F. J. Mantz	5	S. U. I 4 .....	.....	.....
	Ella Stearns.....	5	.....	I. S. N. S. 6.....	.....
Avoca.....	Vera Miles.....	7	State College 4. ....	.....	.....
	Avis Gordon.....	5	S. U. I. 4. ....	.....	.....
	M. E. Crosier	3	.....	.....	High Park Col. 1.
.....	.....	.....	.....	.....	Arm Institute 2.
	Bertha V. Wyant	6	.....	I. S. N. S. 4 .....	.....
	Emma Sherrett.....	7	.....	I. S. N. S. 3 .....	.....
	Hester Sanders.....	7	Iowa College 4 .....	.....	.....

—FOUR YEAR COURSES.

Preparation.	H. S.	High School Courses.
--------------	-------	----------------------

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Barn's City	F. W. Cover.....	9	.....	I. S. N. S. 1.....	.....
	Mr. Boatman.....	2	.....	.....	Penn. Col. 1.....
Battle Creek..	W. B. Munson.....	6	Simpson College 2	.....	.....
	Wilson Jones.....	8	Cornell College 2.	Wis. State Nor. 2	.....
Bedford...	Elizabeth Carrington.....		Univ. of Chi. 1½	.....	Valpariso S. Bap. Col. Burl. 1..
	Lillian O. Meyerhoff.....	7	State Univ. Neb. 2	.....	.....
	W. A. Terrall.....	7	Simpson 1. ... Cornell Col. 4	.....	.....
Belle Plaine	W. J. Dean.....	2	Pen Col. 6	I. S. N. S. 1.....	.....
	Francis Merrill.....	4	Univ. of Mich. 4..	.....	.....
	Nellie Johnson.....	6	.....	I. S. N. S. 4.....	.....
	Agnes Moravec.....	6	S. U. I. 4.....	.....	.....
	Mrs. W. J. Dean.....	6	.....	I. S. N. S. 1.....	.....
Belmond..	Frank Popham.....	5	S. U. I. 1	.....	.....
	Jennie McCormack.....	5	La. Wesleyan 1	I. S. N. S. 1.....	Nor'n Ind. Nor. 2
	Olive Eckerson.....	3	Coe College 4, ...	.....	.....
	Emily Johnson.....	3	.....	I. S. N. S. 4	.....
Brimingham.	F. S. Hill.....	10	I. S. N. S. ....	.....	.....
	O. E. Williams.....	10	I. W. U. 2.	.....	.....
Blockton..	S. Johnson.....	8	Drake 2.....	.....	Telford's Collegiate Academy. 2
	Mamie Zaelke....	8	.....	.....	Shenandoah Col..
Bloomsfield	Wilbur York.....	3	Drake 2.....	I. S. N. S. 2.....	Southern I. N. 2½
	James Westhoff.....	5	.....	.....	S. I. N. 2½.
	Anna Duffield.....	6	Drake 1½.....	.....	S. I. N. 2.....
	Bessie Barnett.....	6	Drake ¼.....	.....	Highland Park 1
Bonaparte	J. H. Vos.....	9	State Univ. of Nebr. 8½.....	.....	Lincoln, (Neb.) Normal 2.....
	Susan Wehn.....	8	Wesleyan Univ. (Nebr.) 2.....	.....	Cameron Col. Mo. ½ Illinois Woman's Col. 1.

—FOUR YEAR COURSES.

1

-

:

4

.

1

1

.

.

1

1

]

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Boone	Marcus M. Beddall.....	4	Univ. of Wis. Graduate w'rk addition'l Univ of Wis. 2 Univ of Chicago 1.....	State Nor. Wis. 4 State Nor. Mo. 2½	
	Eva M. White.....	6	Univ. of Iowa 2..		
	Lydia Rolston.....	6	Cornell 4.....		
	Grace Aimee Reed.....	6	Muskingdon(O) Col 4 Univ. of Chicago ½	I. S. N. S. ¼.....	
	Maude A. Strubel.....	6	Cornell 8½		
	Lou Baker.....	6	Univ. of Ill. 2..	Nor. Ill. Nor. 2..	Nor. Univ. 2.....
	Florence Freeman... ..	5	Univ. of Mich 2½ Grad work Univ. of Mich 1..		
	May Gibson Shuck.....	5	Univ. of Iowa 4 Grad. work S. U. I. 2		
	J. L. Van Horn.....	6	Ohio Wesleyan Univ. 4..		
	J. S. Goldthwaite.....	8	Des Moines Col. 2	I. S. N. S. 3..	
	June Emry.....			I. S. N. S. 2 ..	
Britt	B. W. Hoadley.....	5	Valparaiso 2..		
	Gertrude M. Carman.....	6	Northwestern 4..		
	Lillian O. Smith	6	Iowa Col. 4		
	Lucille E. Alexander.....	7	Greenville (Tenn) Univ. 4..		
Brooklyn..	Elizabeth Wyland	6	Iowa Col. 4.		
	Mary Wyland.....	7	Iowa Col. 4.....		
	Mabel Talbott.....	6	Iowa Col. 2.....		
Buffalo Center..	C. R. Golly.....	7		I. S. N. S. 3.....	
	Abbie Langlin.....	8		I. S. N. S. 2...	
Burlington.....	Maurice Ricker.....	2	Drake Uni. 5.....		Uni. Ill. & Mont
	Ewald Poppe.....	4	Breslau.....		
	Miss H. E. Warren.....	5			City Normal B'd 2
	Miss W. L. Hutchinson...	5	Chicago Uni. 2..		City Normal B'd 2
	Miss Esther Jacobs	5			City Normal B'd 2
	W. Leo Jordon.....	5	Drake Uni 6.....		Oak. Col.....
	Dorothy Schultz	5	S. U. I. 3.....		
	Myra Blake.....	5	Monmouth Col. 3		
	Francis Rogers.....	5	S. U. I. 4		Wellesley Col.
	O. W. Jarvis.....	5	S. U. I. 5.....		
	Florence Chase.....	5	Vassar Col. 4.....		
	W. L. Raymond	5	Iowa Col. 5		
	Newton Van Dalson.....		Manual Training.		Menomence, Wis.
	Olive McKay.....		Manual Training.		Menomence, Wis.

—FOUR YEAR COURSES.

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or univer.ity.	Years in a State Normal.	Years in other institutions above high school grade.
Cantril....	Paul E. Wright.....	4	Drake 1.....		Appleton City 4... Acad. (Mo.).....
	Grace Hale.....	6	I. W. U. 1.....		
	Blanch Casady.....	6			
Capital Park ... (Des Moines.)	J. R. McComb.....	3	Mo. Wesleyan 2 Tarkio 4..	I. S. N. S. ½.....	
	Elizabeth Haas.....	8	Callnan Drake....		Chicago Sum Sch. O. O. O. O..
	Eva Twombly.....	6	Des Moines Col. 4 Uni. of Chicago 1		
	Virginia Hickey.....	5	Drake.....		
	Roscoe B. Weaver.....	5	Simpson 4.....		
	Ivy K. Perdue.....	5			O. O. O. C. 2..
Carrell....	Mrs. E. B. Carroll... ..			I. S. N. S. 4. ...	
	Makepeace Morris		S. U. I. 5... ..		
	Grace Ferguson		Ohio Uni 5.....		
Carson....	John S. Coye.....	8	I. S. O. 4.....		
	Ethel Osler.....	9		I. S. N. S. 4.....	
Cedar Falls	Amy Dougherty.....	3	Cornell Col. 4.....		
	Miriam Brooks.....	5	Iowa Wes. 4.....		
	Laura Phillips.....	6	Cornell 4.....	I. S. N. S.	
	Laura Kingman	6		I. S. N. S. 3½.....	
	Eloise Waring	5	Uni. Mo. 4½.....		
	Alice Cramer	6		I. S. N. S. 2¼.....	
	Lillian Getty.....	6		Nebr. Nor. 2.....	Lincoln Bus. Col.1
Cedar Rapids..	Abble S. Abbott, Principal ..		Nor. School Salem Mass Uni Chi		
	Louise Barker.....	5	Uni. Michigan..		
	John Cameron	4	S. U. I.	I. S. N. S.	
	Elen Clemens... ..	4	Northwestern		
	Elizabeth M. Cook	4	Coe. Col. U. of Chi		
	Isabel Duell.....	5			Bus. Col.,
	W. Fritz Duhl.	6	Ger'y U. of Chi...		
	Emma Fordyce	5			
	Anna Fisher.....	5	U. of Chi		
	Earnest Hartwell.....	5	Albion		Bus. Col.
	Ina Hibbard	5			
	Virginia Knox	5	Wellesley Grin..		
	Carrie M. Palmer	4	U. of Michigan...		
	Lucile Powell.....	5	Shepardson U. Chi		
	Gertrude Prescott.....	5	Cornell.....		
	Lewis Robey	5	Wabash.....		
	Alice Rudd	5	Cornell.....		
	Mare Schmermund	5	U of Michigan...		
	A. Clyde Slifer.	5	Ames.....		
	Dewitt O. Sprague	5	Grinnell		
	Carrie M. Wildey.....	5	Grinnell		
	Rachel E. Witmer.....	5	Coe, Univ. of Chi.		

--FOUR YEAR COURSES.

HIGH SCHOOL STATISTICS

High school.	Names of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Center Point	Leo H. Paulger.....	7	Cornell Col. 4.....		
	Margaret Gilchrist.....	8	U. of Chi. 1.....	I. S. N. S. 2.....	Columbia School. Oratory (Chi).. Grad.....
Center-ville..	E. N. Gibson.....	1	S. U. I., 1 Sum.	I. S. N. S. 3.....	
	Orsini V. Swift.....	4			Bloomfield Nor 1. North. Ind. Nor. 2
	Eunice Meers.....	6	Drake Uni. 4		
	Florence Hoefner.....	6	Uni. Minn. ½		Char. Cy. Col. 3..
	Florence Van Dike.....	6	Iowa Col. 4.....		
	J. Oreta Purmort.....	6	Coe Col.		
	T. B. Young.....	6	Parsons Col. 2..		
	Janet Wilson.....	6		I. S. N. S. 2.....	
Central City..	H. M. Taylor.....	8			Drake 2½.....
	Myrtle Metcalf.....	8	Cornell 4.....		
Chariton..	Mrs. L. M. Gaw.....	6	Uni. Kansas.....	I. S. N. S.	
	Nellie Darby.....	7	Uni. Chicago 6..		
	Louise Singer.....	6			
	Adda Manning.....	7	Drake Uni.....		
Charles City..	Fannie R. Wilson.....	3	I. S. T. A. 4.....	Mass. State Nor. 2	
	Elizabeth Carmichael.....	1	Quincy Com. 4....		
	Agnes Case.....	5	Wisconsin Uni. 4		
	Jay T. Colgrove.....	6	Simpson 2.....	I. S. N. S. 3.....	
	Gladys I. Goddard.....	5	Olivet Michigan 4		
	G. W. Hageman.....	6	Uni. of Mo. & Central Wis. 2..		
	Alberta Hoffman.....	5		I. S. N. S. 2.....	
	O. N. Olesen.....	4	Battle Creek 2	I. S. N. S. 4.....	
	Edith A. Reid.....	1	Col Sch. Oratory 2		
	Oswald Risser.....	4	Bithel Col. 1. Ia. Col. 4....		Denmark Acad. 3
Charter Oak..	Walter Mitchell.....	7		I. S. N. S. 3½.....	
	Clara Pearl Hayden.....	8		I. S. N. S. 2.....	
Cherokee..	A. V. Storm, Supt.....	1	Ill. Wesleyan U. 4		
	Martha Roberts, Principal.	3	S. U. I. 2 summers	Neb. Nor. 1 sum. I. S. N. S. 3 sum.	
	Estella Boot.....	5	Uni. S. D. 4 S. U. I. 1 summer..		
	Charlotte Lorenz.....	6	S. U. I. 3.....		
	Estella Ducker.....	6	Uni. Neb. 4.....		
	H. B. Clarke.....	6	Coe Col.....		
	A. O. Gordon.....	6	S. U. I. 4.....		

—FOUR YEAR COURSES.

Preparation.		High School Courses			
Degrees held.	Yrs experience in H.S.	Branches studied	AYUMUM WEEK.	Per. per week.	Per. per day.
B. S.			144	5 35	18 5 4
B. D.			144	5 35	18 5 4
B. D.			144	5 35	18 5 4
B. S., A. B.			144	5 35	18 5 4
A. B.			144	5 35	18 5 4
Ph. B.			144	5 35	18 5 4
Ph. B.			144	5 35	18 5 4
A. B.			144	5 35	18 5 4
B. S.			144	5 35	18 5 4
B. D.			144	5 35	18 5 4
Ph. B.			144	5 35	18 5 4
B. L.			144	5 35	18 5 4
Ph. B.			144	5 35	18 5 4
B. Sc.			144	5 35	18 5 4
B. Sc.			144	5 35	18 5 4
M. D.			144	5 35	18 5 4
A. B.			144	5 35	18 5 4
B. D.			144	5 35	18 5 4
M. D.			144	5 35	18 5 4
A. B.			144	5 35	18 5 4
B. D.			144	5 35	18 5 4
M. D.			144	5 35	18 5 4
Ph. B.			144	5 35	18 5 4
A. B.			144	5 35	18 5 4
M. A., B. A.			144	5 35	18 5 4
B. S.			144	5 35	18 5 4
A. B.			144	5 35	18 5 4
Outlier Acad.			144	5 35	18 5 4
Political Econ.			144	5 35	18 5 4
Zoology			144	5 35	18 5 4
Book-keeping			144	5 35	18 5 4
Cesar			144	5 35	18 5 4
Latin beginning			144	5 35	18 5 4
Botany			144	5 35	18 5 4
Geometry			144	5 35	18 5 4
Geology			144	5 35	18 5 4
U. S. History			144	5 35	18 5 4
Arithmetic			144	5 35	18 5 4
Book-keeping			144	5 35	18 5 4
Com. Law			144	5 35	18 5 4
Phys. Geog.			144	5 35	18 5 4
Didactic			144	5 35	18 5 4
Political Econ.			144	5 35	18 5 4
Botany			144	5 35	18 5 4
Book-keeping			144	5 35	18 5 4
Review			144	5 35	18 5 4
Latin			144	5 35	18 5 4
Botany			144	5 35	18 5 4
English History			144	5 35	18 5 4
Book-keeping			144	5 35	18 5 4
Chemistry			144	5 35	18 5 4
German			144	5 35	18 5 4
Astronomy			144	5 35	18 5 4
Zoology			144	5 35	18 5 4
Botany			144	5 35	18 5 4
Business Law			144	5 35	18 5 4
Word Analysis			144	5 35	18 5 4
Com. Geog.			144	5 35	18 5 4
Book-keeping			144	5 35	18 5 4
German			144	5 35	18 5 4
Book-keeping			144	5 35	18 5 4
Latin			144	5 35	18 5 4
Solid Geom.			144	5 35	18 5 4
Zoology			144	5 35	18 5 4
Physical Geog.			144	5 35	18 5 4
English History			144	5 35	18 5 4
Political Econ.			144	5 35	18 5 4
Chemistry			144	5 35	18 5 4
Old. or Book-k.			144	5 35	18 5 4
English			144	5 35	18 5 4

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Clarinda ..	Frank W. Perkins.....	8	.....	I. S. N. S. 4.....	.....
	Jessie L. Canning	6	.....	I. S. N. S. 4.....	.....
	Mary Berry.....	6	.....	Kan. State Nor. 4	U. of Chicago ½..
	Mrs. Fred Loranx	6	.....	.....	.....
	Mabel Stone.....	6	Simpson Col. 4....	.....	.....
Clarion ...	W. H. Blakely	4	Gen. U. 3 S. U. I. 2	.....	Iowa City Acad. 1
	Nan Maughlin.....	5	Parkio College 1 U. of Neb. 1	.....	Washington A. 1.
	Ruth Browne	6	Iowa Col. 4.....	.....	.....
	Mary Cruikshank.....	..	Iowa Col. 4.....	.....	.....
Clarksville	Everett A. Reynolds.....	8	U. of Wis. 3	Oskosh, Wis., N. 4	.....
	Gertrude M. Heery.....	8	Ann Arbor 3 U. of Chicago ½	.....	.....
	Geo. J. Lux.....	8	U. of Chicago 1...	.....	Spencer B. C. 3 M. St. Joseph 6 (Tentopolis)
Clearfield.	E. O. Heaton.....	6	Labor College 1 Simpson Col. 3..	.....	Simpson Bus. 7. ½ Afton N. & B.C. 2½
	Maud Nelson	7	.....	I. S. N. S. 2 .....	.....
	Eva C. Brown.....	4	.....	I. S. N. S. 2 .....	.....
Clear Lake	L. W. Hicks, Supt.....	4	Cornell Col. 5 .....	.....	Unl. of Chicago (Post Graduate)
	Susan McCoy, Principal....	6	U. of Chicago 1...	.....	Highland Park C.
	Evelyn Wilson.....	7	Iowa Col. 4.....	.....	.....
	Ellen Olson	1	.....	I. S. N. S. . .....	.....
Clinton ...	J. S. McCowan.....	4	Iowa Col. 5 U. of O. 2 sum....	.....	.....
	Mrs. Ardella Billings.	7	.....	.....	U. of Chi. 1 sum.
	Eldor. White.....	6	.....	.....	U. of Chi. 2 sum.
	Helen Walker.....	6	Oberlin Col. 6 U. of Chicago 2..	.....	U. of Jena. 1 sum.
	Eliza A. Rogers	6	.....	.....	.....
	Margaret McCowan.	6	U. of C. 1 Ia. C. 4.	.....	U. of Chicago ½..
	Jean Newcomer	6	Rockford Col. 5 ..	.....	U. of Chicago 1...
	Laura A. Meier	6	Ripon 5 .....	.....	.....
	Mabel Lea	5	.....	.....	U. of Wis. 1½
	O. W. Holbrook	6	Ripon 4 .....	.....	.....
	F. W. Elson.	6	.....	.....	Muskegon, Mich. Man. Tr. Sch. 1..
	Leigh M. Michelsen .....	..	.....	.....	U. of Chi. sum ..
Colfax.	Milo Hunt.....	..	Penn College 4, In Absentia 3 U. of Chi. 2 summers.	.....	.....
	Mae Brewer.....	..	Monmouth 1.....	I. S. N. S. 2	U. of Neb. 1 sum.
	Josephine Lucas .....	..	S. U. of Nebr. 4..	.....	.....

—FOUR YEAR COURSES.

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Columbus Junction	M. O. Crouch.....	4	Cornell Col. 4....	.....	U. of Chi. 1. . . .
	W. R. Lytle.....	6	Monmouth Col. 2	.....	.....
	Pauling Collins.....	6	Monmouth Col. 4	.....	.....
	Maud Ensign.....	2	Coe College 4....	.....	.....
Conrad....	A. M. Gray.....	7	.....	I. S. N. S. 3.....	.....
	G. A. Sims.....		.....	I. S. N. S. 1.....	.....
Coon Rapids.	Charles F. Schell.....	6	Western Col. 4	.....	Doane Col. (Crete
			U. of Chicago 2....	.....	Nebr.) 1.....
	Minnie H. Deyoe.....	7	Bethlehem Col. 3	.....	.....
	Eena Jeffrey.....	7	Simpson Col. 4....	.....	.....
Corning...	J. W. Fowler.....	1	Hamilton College	.....	Post grad. work
			N. Y. 4.....	.....	at Cornell Univ.
	Edna B. Thompson.....	6	Northwestern U.	.....	and Univ. of Chi..
			Albion Col. (Mi) 2	.....	S. U. I. 1/2.....
	Marion H. Dampman.....	6	.....	.....	Wash. Sem. 4,
	Eva Smith.....	2	Monmouth Col. 5.	.....	Har. Su. S. 6 w.
				.....	Univ. of Chicago
Corre- tionville..	Myra Reeves.....	6	Cornell College 4.	.....	Summer term..
	W. S. Hicks.....	6	Drake 1.....	I. S. N. S. 3.....	.....
	O. B. Mericle.....	4	Western Col. 4....	I. S. N. S. 6 wks.	.....
	Jeanette Fletcher.....	7	Bellevue, Neb. 3	.....	Fremont, Neb.,
Corrydon ..	Ida Fay Hoax.....	7	Morning Side U. 2	.....	Nor. 3 mo.....
	Roxie Belle McCord.....	7	Cornell College 4.	.....	Hedding Col. 3....
			
Corrywith...	J. R. Bagge.....	7	Des Moines Col. 4	I. S. N. S. 1 term.	Sac City Inst. 1..
	Helene Townsend.....	7	Iowa College 2....	.....	.....
Corrydon ..	W. L. Pugh.....	6	Parsons Col. 4....	.....	.....
	H. R. Smith.....	6	Cornell Col. 4....	.....	.....
	W. B. Hays.....	6	Upper Iowa 3 mo.	.....	.....
	Annie G. Marsh.....	3	Drake 3 mo.....	I. S. N. S.....	.....

-FOUR YEAR COURSES.

F
-

A
A
A
F

E
.

A
E

A
A
.
A
A
E

A
A
.

.

A
A

I

HIGH SCHOOL STATISTICS

High school.	Names of instructors.	Number of periods	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Council Bluffs....	S. L. Thomas.....	1	S. U. I. ¾. Uni. Chicago (Sum) 2	I. S. N. S. 4 .....	.....
	Emma N. Beesche.....	5	D. Chicago (Sum) 4	.....	.....
	H. E. Colby.....	6	Des Moines Col. 4.	.....	.....
	Frances D. Dalley.....	5	Smith Col. 4.....	.....	.....
	J. O. Grason.....	6	H. P. Col. 3½.....	.....	.....
	D. Fred Grass.....	5	Iowa College 4	.....	.....
	A. R. Heaps.....	6	Harvard 2.....	.....	.....
	Blanche Noel.....	6	N. W. Uni. 4.....	.....	.....
	Mittie M. Pile.....	5	Iowa College 8½..	.....	.....
	Kate S. Reed.....	4	S. U. I. 8.....	.....	.....
	Jennie G. Rice.....	5	S. U. I. 2.....	.....	Ia. Business Col..
	Anna Z. Ross.....	5	S. U. I. 4, Chicago Uni. ¼.....	.....	.....
	Maye Sedgwick.....	6	S. U. I. 4, Chicago Uni. 1-6.....	.....	.....
	Edna M. Sprague.....	5	Drake Uni. 4.....	.....	.....
	Charlotte A. Taylor.....	6	S. U. I. 2. Uni. Wisconsin 2..	.....	.....
	Marcia Waples.....	6	Denver Uni. 2...	.....	Wallace & Woodworth Bus. C. 1
	Ratella Wood.....	6	N. W. Uni. 2, Chicago Uni. 2, Uni. Berlin 1...	.....	.....
		6	Uni. Chicago ¼	.....	.....
			Cornell 4.....	.....	.....
Cresco	L. E. A. Ling.....	4	Uni. Wis. Sum. 2.	.....	.....
	M. Alda Tate.....	4	.....	.....	Wash. Acad. 4. ..
	Etta Grice.....	7	Parson's Col. 8...	.....	.....
			Drake 1; College Uni. Sum. 1 .....	.....	.....
Creston. .	Rhedella Kirtland.....	7	Uni. Minn. 4.....	.....	.....
	O. E. French.....	.....	.....	.....	.....
	William Bell	4	.....	.....	Wash. Acad. 2 ...
	Nancy Bell.....	7	Parsons Col. 2...	.....	.....
	Elizabeth Faye Rowls	7	U. of Neb. 8; U. of Chicago 2 .....	.....	.....
	B. D. Stowell.....	7	Albion Col. 2. ....	.....	Petokey Nor. and Bus Col. 1; Mich. S. Nor. Col. 1...
	Sarah J. Sawyer.....	6	U. of Wis. 1.....	.....	Revation Acad., Vt. 7; Richland Inst. 2.....
	Jennie MacEachram.....	5	.....	.....	.....
Dallas Center ..	Edith Leslie Hatch	7	Oberlin Col. 4...	.....	Oberlin Acad. ½..
	James R. Lock.....	6	U. of Chicago 1½.	.....	Valparaise Col. 3½
	W. H. Gemmill	5	Iowa State Col. 4.	.....	Drake 1.....
	Anna V. Keglser	7	.....	I. S. N. S. 2.....	Mt. St. Joseph 1..
	Bertha Wise	7	Iowa College 4...	.....	.....

HIGH SCHOOL STATISTICS

High school.	Names of instructors.	Number of periods.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Davenport	J. B. Young, Supt.....	2	S. U. I. 4.....	I. S. N. S. 2½.....	.....
	W. D. Wells.....	5	Cornell Uni. N.Y. 4.....	N. Y. St. Nor. Col. 1.....	.....
	Chas. M. Lillie.....	7	Uni. of Berne 5.....	.....	.....
	Paul Radenhausen.....	6	Yale Uni. 5.....	.....	.....
	Chas. A. Kellogg.....	6	Yale Uni. 4.....	.....	Genesee Nor. N.Y. 1.....
	Christian Meyer Jr.....	6	Cornell Uni. N.Y. 4.....	.....	Post Grade Work in U. of Wis. 2.....
	O. H. Lowary.....	6	Uni. of Wis. 4.....	.....	.....
	J. L. Thatcher.....	6	S. U. I. 4.....	I. S. N. S. 4.....	Hopedale N. Col. 4.....
	A. F. Ewers.....	6	Elmhurst Col. 5.....	.....	Ia. O. & U. of Chi. 3.....
	J. B. Baldwin.....	7	Wash. Col. 4.....	.....	Uni. of Chi. 1.....
	Theo. W. Schiek.....	6	Uni. of Ohio. 4.....	.....	.....
	Jennie Cleaves.....	6	Knox Col. 4.....	.....	.....
	Lulu L. McCafferty.....	6	Uni. of Mich. 4.....	.....	.....
	Minnie Johnson.....	6	Uni. of Minn. 4.....	.....	.....
	Annette Stayt.....	6	Oberlin Col. 4.....	.....	.....
	Grace Mitchell.....	6	Ladies Seminary, Hamburg, Germany, Lectures at Hanover and Oberlin.....	.....	.....
	Alice Middlekauff.....	6	Uni. of Chi. 4.....	.....	.....
	Marie Lorenzen.....	7	Uni. of Chi. 1.....	.....	.....
	Ella Behnke.....	6	S. U. I. 4.....	.....	.....
	J. M. Mahaffy.....	8	S. U. I. 4.....	.....	.....
	H. C. Johnson.....	6	S. U. I. 4.....	.....	.....
	Mary Mueller.....	6	S. U. I. 4.....	.....	.....
	Lulu Moulton.....	6	S. U. I. 4.....	.....	.....
	F. E. Welstead.....	5	Cornell Col. 4.....	.....	.....
Decorah...			Uni. of Chi. 1.....	.....	.....
			
Delta.....	Clyde Workman.....	8	.....	I. S. N. S. ½.....	So. Ia. N. & Sci. Ia. 2.....
	Mae Mead.....	8	.....	.....	.....
Denison...	Ernest W. Fellows.....	8	Iowa Col.....	.....	.....
	O. E. Humphreys.....	5	Fairfield C. (Neb) 2.....	Neb. St. Nor. 2.....	.....
	Myrtle Baker.....	6	S. U. I. 8½.....	.....	Ia. City Com. Col. 1.....
	Myrtle Culmer.....	6	Simpson Col. 8.....	.....	Ohio Wesleyan 1.....
	Bess Peebles.....	6	Upper I. Uni. 4.....	.....	S. U. I. 1.....
	Marcella Nachtmann.....	4	Chi. Conser. 1.....	.....	Nat'l Sum. School of Music 3.....
	Jacob Johnson.....	4	.....	I. S. N. S. 4½.....	.....
		
		
Des Moines East.....	May Goodrell.....	.....	S. U. I. 8.....	.....	.....
	Elizabeth F. Wright.....	.....	Cornell Col. 4.....	.....	.....
	Mary E. Patterson.....	.....	Iowa Col. 4, Chi. U. 2.....	.....	.....
	Maud St. John.....	.....	S. U. I. 8.....	.....	.....
	Caroline S. Lawrence.....	.....	Iowa Col. 4.....	.....	.....
	Sarah Wickware.....	.....	Iowa Col. 1, U. of Leipzig 1½.....	.....	.....
	Francis Church.....	.....	S. U. I. 8.....	Neb. Nor. 3.....	.....
	W. P. Bair.....	.....	Iowa Col. 4.....	.....	.....
	Caroline A. Bea.....	.....	Mt. Holyoke Col. 4.....	.....	.....
	Elizabeth Richardson.....	.....	Des Moines Col. 8.....	Mass. Nor. 2.....	.....
	Edna L. Hooley.....	.....	U. of Wis. 4.....	.....	.....
	Edith C. Keefer.....	.....	Rhode Is. Col. 4.....	.....	M. L. B. Woods' Hall (Summer).....
	F. D. Nelson.....	.....	Des Moines Col. 4.....	.....	.....
		.....	U. of Chi. ½.....	Mankato Nor. 1.....	.....
	Hilton I. Jones.....	.....	Drake U. 1.....	Parker Normal (Minn.) 4.....	.....
	George B. Coffman.....	.....	Drake U. 4, U. of Chi. ½.....	.....	.....
	Caroline Uhl.....	.....	Iowa Col. 4.....	.....	.....
	Edna S. Poerbaugh.....	.....	.....	I. S. N. S. 2.....	.....
	Christine Balliet.....	.....	Drake U. 8.....	.....	.....
		
		

—FOUR YEAR COURSES.

P

B
A
P
A
A
A
A
B
A
B
B
B
B
B
P

A
P
P
P
B
B
B
B

A
P
P
P
P
P

P
A
P
A

P
P
A
A
B
B

A
A
A
A
A

HIGH SCHOOL STATISTICS

High school.	Names of instructors.	Number of periods.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Des Moines West	W. O. Riddell, Supt.....	..	.....	.....	.....
	W. A. Crusinberry.....	..	S. U. 1. and U. of Chi. (Special), Oskaloosa Col. 2 ..	.....	Goodsell Observ. 4 summers, Lenox Acad. and Col. 7
	Martha A. Beeson.....	5	Butler U. 1., U. of Wis. (Summer) ..	.....	U. of Chi. (Correspondence), Tr. school (Marshalltown, Ia.) 1
	Jora Brotherton.....	5	U. of Chi. 1. Knox Col. 4 ..	.....	U. of Minn. 1 sum, Cornell U.
	Anna L. Burdick.....	5	S. U. I. 4.....	.....	.....
	M. Leon Duflos.....	4	Col. de Lemm 10, Lycee' Charlemagne (Paris) 3 ..	.....	.....
	Clara Foss.....	6	.....	.....	Grinnell Acad. 1.
	Dorothy Fowler.....	5	U. of Mich. 3. ....	.....	Drake 1.
	Adele Fuchs.....	5	U. of Chi. 2 sem., S. U. I. 2 years ..	.....	Berlin U. 1, Col. of Med 2.....
	Lizbeth V. Griffith.....	4	Chi. Froebel Ass. 1 ..	.....	Humboldt Col. ½
	Lafayette Higgins.....	6	Drake 4.....	.....	.....
	Francis Keffer.....	5	Pratt Ins. 2. ....	.....	Cumming School of Art 2 ..
	Margaret King	5	Drake U. 4, U. of Chi. 2.....	.....	W. D. M. Train. School ..
	Zulema Kostomlatsky.....	4	S. U. I. 4.....	.....	U. of Chi. 1 qr.....
	Cordelia Kyle.....	5	Iowa Col. 1. ....	.....	S. Ses. Amherst...
	Jarah M. Loving.....	4	S. U. I. 3½, U. of Chi. ....	.....	Studied in Ger..
	Frances Mac Farland.....	4	Woman's College (Balt.) 1, D. M. Col. 2.....	.....	U. of Minn. 1.
	Albert W. Merrill	5	Iowa Col. 4 ..	.....	.....
	Alice E. Moss.....	4	Drake (Summer). ..	I. S. N. S. 1.....	U. of Chi.
	A. C. Newell.....	4	U. of Mich. 4.....	.....	Columbia, B. V. Sloyd Sch. 1-4
	Letta Simmons.....	5	Carthage Col. 4..	.....	U. of Chi. 1.....
	Clay D. Slinker	6	.....	.....	O. O. C. Col.....
	Herbert B. Smith	5	U. of Minn. 4. ....	.....	.....
	Minnie Snure.....	5	.....	St. Nor. College Mich. 4½.....	.....
	Mary Stanley.....	5	Cornell Col. 3.....	.....	N. M. Col. 6 mo..
	Jessie Taft.....	5	Drake 3.....	.....	U. of Chi. 1.....
	Josephine Taylor.....	5	Drake 2.....	.....	Cook Co. Nor. 2, U. of Chi. ½....
	Eldon Usry	6	Iowa State Col 4½ ..	.....	Hartford Theol. 3
	N. H. Weeks.....	5	Amherst Col. 4. ....	.....	.....
	Otto Wendelburg.....	5	Ger. Am. Teach. Sem. (Mil.) 2:..	.....	Nor. Sch. of N. A. Gymnastic Union 2.....
	Mrs. Otto Wendelburg.	5	Ger. Am. Teach. Sem. (Mil.) 2. ..	.....	Nor. Sch. of N. A. Gymnastic Union, Chautauque N. Y. 2 sum....
	Katherine Willis.....	5	Des Moines Col. 4 ..	.....	U. of Wis. ½.....
	Josephine V. Williams.....	5	S. U. I. 4.....	.....	U. of Chi. 1 term

—FOUR YEAR COURSES.

Preparation.		High School Courses.								
Degrees held.	Yrs experience in H. S.	Branches studied.	Number weeks.	Rec. per week.	Rec. period.	Branches studied.	Number weeks.	Rec. per week.	Rec. period.	
		Algebra	54	5	45					
		Geometry	54	5	45	Latin	144	5	45	
		General Hist.	28	5	45	Latin Prose ..	144	1	45	
		U. S. History	56	5	45					
		Civics	18	5	45	Chem. or Zoolo'y	86	7	45	
		Physical Geog	18	5	45	Physics	86	7	45	
		English	144	5	45	Geometry—Solid	78	3	45	
B. S., A. B.	26	Physiology.	18	5	45	Ger man or Latin	12	5	45	
		Botany	18	5	45					
						Latin or Ger...	72	5	45	
						French or Ger..	72	5	45	
						Com. Course...	262	5	45	
	18									
B. S.	11									
B. S.	18									
	1									
	7									
A. B.	4									
M. D.	19									
	1									
A. B.	7									
	2									
A. B.	8									
	11									
	20									
Ph. B.	16½									
A. B.	1									
A. B.	1									
	2									
B. S.	12									
	2									
	10½									
B. S.	7									
	6									
Ph. B.	4									
Ph. B.	1									
Ph. B.	8									
S. M. E.	2									
A. B.										
	4									
	5									
B. Ph.	11									
B. Ph.	20									

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number rec. periods	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Des Moines North...	J. G. Grundy, Prin.....	.....	.....	.....	.....
	Paul A. Dietrichson.....	.....	.....	.....	Stout Man Tr. S. 2
	Grace Troutner.....	6	I. S. O.	I. S. N. S. 4.....	Bradley Inst. 5 w
	Grace Fager.....	5	U. of Wis. ....	.....	Des Moines Col. ½
	Ella Mehlin	5	Drake 3½ .....	.....	.....
	Anna G. Herrick.....	6	Iowa Col. 4 .....	.....	.....
	J. L. Martin.....	5	Cornell U. 4 .....	.....	.....
	Ruth W. Grefe.....	6	Iowa Col. 2.....	.....	.....
	T. E. Goodell.....	5	Vas-ar Col. 4....	.....	.....
	.....	5	U. of Chi. 2, U. of S. D., Johns Hopkins 2.....	.....	U. of Rochester, Chi. Med. Col..
	Mabel E. Frisbie	5	Iowa Col. 4.....	.....	.....
	Emma O. Moulton.....	5	Iowa Col. ....	.....	.....
	R. E. Farrand.....	4	Drake 4 .....	.....	.....
Dexter	D. P. Repass	6	.....	.....	N. Ind. Nor. 2...
	Bessie Burnett.....	7	Simpson Col. 3... ..	I. S. N. S. 2.....	.....
	Jessie Hinkle	6	S. U. I. 4 .....	.....	.....
	Francis H. Arnold....	7	Iowa Western U. Conservatory 2	Wis. Nor. ½.....	Chi. Sch. of Music Methods
Dow City.	Harry D. Kies.....	8	Drake 4 .....	.....	.....
	Myrtle Newman.....	8	Cornell Col. 1½..	I. S. N. S. sum s.	U. of Neb. 1
Dows.....	O. H. Gilbert.....	5	.....	I. S. N. S. 4.....	Elsworth Col. 2 ..
	Daisy P. Blum... ..	7	S. U. I. 4.....	.....	.....
	Eva L. Cole... ..	7	.....	I. S. N. S. 2.....	.....
Dubuque .	Frank L. Smart, Prin .....	.....	Howard U. 3.....	.....	Nor. Ind. 4, U. of Chi. 2 terms....
	John A. Anderson.....	6	Lake Forest U. 2.	.....	U. of Chi. 1 term, U. of Mi. 1 term, Harvard U. 1½..
	Helen M. I. Sauer.....	6	Private instruction after graduating from Dubuque H. S. 2 y's .....	.....	.....
	Susan W. Hetherington....	6	Young Ladies' Sem. of Dubuq'e 4 years, Grad. of O. L. S. O. 4.	.....	.....
	Harriet E. Greenhow.....	6	Private instruction after graduating from Dubuque H. S. 1 yr.	.....	.....

— FOUR YEAR COURSES.

HIGH SCHOOL STATISTICS

High school.	Name of instructor.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Dubuque..	Matilda A. Harrington.....	6	U. of Mich. 2½...	I. S. N. S. 2.....	U. of Cal. (P.G.) 1
	J. O. Nelson	6	Hanover Col. 4...	.....	U. of Mich. 1 term
					U. of Ind. 1 term
					U. of Wis. 1 term
					Harv. U. 1 term
	J. P. Mueller.....	6	U. of Namur (Belgium) 1	Royal N. Luxemburg 8, Cook Co. Nor. 1.....	.....
	Gayle Hamilton.....	8	U. of Berlin 1.....	.....	The Sorbonne Paris ½, Private Institution Paris ½
	Grace G. Murray	6	U. of Chi. 4.....	.....	.....
	W. W. Claus	7	.....	.....	U. of Wis., Manual training Co 4 terms.....
	N. D. Hamilton	6	U. of Indiana 4...	Ind. State Nor. 1.	U. of Chi. 1 term.
	W. B. Catlin.....	6	U. of Nebr. 3. ...	Neb. State Nor. 3	Emerson Col. Oratory (Boston) 1 term... ..
	Fred S. Barrows.....	6	U. of Wis. 2.....	State Nor. (Point Stevens) 2.....	.....
	Anna F. Jess.....	6	.....	.....	St. Joseph Col. 4.
	Linda Rider.....	6	U. of Wis. 4 .....	.....	.....
	J. Fletcher Lewis.....	6	U. of Mich. 4.....	.....	.....
	L. G. Cooper.....	6	U. of Mich. 4.....	.....	.....
Dunlap...	Geo. Galloway.....	4	S. U. I. 1.....	I. S. N. S. ....	.....
	Roxy Peterson.....	7	.....	I. S. N. S. ....	.....
	Mayme Taylor.....	7	Iowa Col. 4.....	.....	.....
Dysart....	I. J. McGinty.....	5	Cornell U. 3, Central U. 2... ..	.....	Fredonia Normal (N. Y.) 2.....
	E. Nelle Rait.....	7	Monmouth Col. 1.	.....	.....
	Alice J. White.....	5	.....	I. S. N. S. 8.....	.....
Eagle Grove...	L. G. Focht.....	2	Tabor College 2,	.....	.....
		7	Drake 4.....	.....	.....
	Adelaide Boden.....	7	Drake Nor. S. 2,	.....	.....
		7	Drake U. 2.....	.....	.....
	Bernice Johnston.....	7	.....	I. S. N. S. 1 term	S. U. I. 1 term....
	Eugenia Pattison.....	7	.....	I. S. N. S. 2.....	.....
	Jessie L. Hopkirk.....	4-	.....	I. S. N. S. 2.....	.....

—FOUR YEAR COURSES.

Preparation.

1
2

High School Courses.

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

HIGH SCHOOL STATISTICS

High School	Name of instructors.	Number of period.	Preparation.		
			Years in College or university.	Years in a State Normal.	Years in other institutions above high school grade.
Earlham ..	William H. Monroe.	6	Parsons Col. ....	.....	Bloomfield Ner. and Scientific Institution 4.....
	E. L. Ferrier.....	6-8	.....	.....	Valparaiso Col. 3, U. of Chi. 1/4, Chi. Normal 1/4, High'nd P'rk 1/4, Muscatine Bus. Col. 1/4.....
	R. V. Hopkins.....	6-8	Lombard College Galesburg, (Ill.) 4.....	.....	.....
Early	F. L. Kolb	6	.....	I. S. N. S. 4 .....	.....
	Altha Stone.....	8	.....	I. S. N. S. 3.....	.....
Eddyville .	J. A. Yeager.....	8	.....	I. S. N. S. 3 1/2.....	.....
	Mary A. Moore	8	Penn Col. 4. ....	.....	.....
Edgewood.	Thos. R. Roberts	7	Upper Iowa University 4. ....	.....	.....
	M. J. P. Thing	8	Carelton Col. 4....	.....	Chi. Theo. Sem 3
Eldon	A. S. Fulton	4	Mich. Univ. 8.....	.....	Wash. Acad. 4....
	Miss Ohidester.....	6	Parsons Col. 4....	.....	.....
	Miss Whipple.....	6	Iowa State Col. 4	.....	.....
Eldora.....	A. J. Cavana.....	4	S. U. I. ....	.....	Harv. & U. of C. Summer schools..
	Luella M. Albrook		Cornell Col. ....	.....	.....
	Jennie Fenton		S. U. I. ....	.....	.....
	Kate Donaldson .....		.....	.....	.....
	Miss Seever (Music).....		.....	.....	.....
Elma.....	A. R. McCook.....	6	Univ. of Minn 1. ....	.....	.....
	Mrs. A. R. McCook.. ..	7	.....	.....	.....

—FOUR YEAR COURSES.

Preparation.		High School Courses.									
Degrees held.	Yr's experience in H. S.	Branches studied.	Number weeks.	Per cent.	Branches studied.	Number weeks.	Per cent.	Branches studied.	Number weeks.	Per cent.	
A. M.	20	Algebra	60	5.85	Physics	34	5.55	Eng. Classics...	12	5.35	
		Geometry	47	5.35	English	144	5.34	Latin	108	5.35	
		Arithmetic	24	5.35	Physiology	12	5.35	Book-keeping ..	12	5.35	
		Gen. History	35	5.35	Political Econ.	24	5.35	Astronomy	16	5.35	
		U. S. History	18	5.35	Agriculture	18	5.35	Botany	12	5.35	
		Civics	18	5.35	Com. Geog.	18	5.35				
		Physical Geog.	18	5.35	Word Analysis ..	36	5.35				
B. S.	7										
A. B.	1										
M. D.	5	Algebra	54	5.41	Civics	18	5.30	Political Econ.	1	5.30	
M. D.	1	Geometry	54	5.41	Physical Geog. ..	18	5.30	Bookkeeping ..	1	5.45	
		Arithmetic	36	5.30	Physics	36	5.43	Lat'n	7	5.45	
		General Hist.	36	5.3	English	126	5.31				
		U. S. Hist.	12	5.30	Physiology	12	5.3				
B. D.	2	Algebra	72	5.3	Civics	18	5.35	Botany	16	5.30	
A. B.	2	Geometry	54	5.3	Physical Geog. ..	36	5.30	Bookkeeping ..	36	5.35	
		Arithmetic	18	5.30	Physics	36	5.4	Latin	36	5.35	
		General Hist.	36	5.3	English	90	5.3				
		U. S. Hist.	36	5.30	Political Econ. ..	18	5.3				
Ph. B.		Algebra	54	5.4	U. S. Hist.	18	5.4	English	144	5.40	
A. B. B. S. B. L.		Geometry	36	5.4	Civics	18	5.4	Physiology	18	5.40	
(B. D.)		Arithmetic	18	5.4	Physical Geog. ..	18	5.4	Botany	18	5.40	
		General Hist.	36	5.4	Physics	36	5.40	Latin	108	5.40	
	12	Algebra	72	5.4	Physics	36	5.4	Physiology	18	5.40	
A. B.	5	Geometry	54	5.4	English	144	5.4	Zoology	18	5.40	
	6	Arithmetic	18	5.4	Political Econ.	18	5.40	Book-keeping ..	18	5.40	
		General Hist.	36	5.40	Latin	144	5.4	Hist. U. S.	18	5.40	
		Civics	18	5.4				German	72	5.40	
		Physical Geog.	18	5.4							
B. S.	12	Algebra	54	5.4	Physical Geog. ..	18	5.4	Botany	18	5.40	
A. B.	6	Geometry	54	5.4	Physics	36	5.4	Orthography ..	18	5.40	
	8	Arithmetic	18	5.4	English	144	5.40	Bookkeeping ..	18	5.40	
	1	General Hist.	36	5.4	Latin	144	5.40	German	36	5.40	
		U. S. Hist.	18	5.4				Latin	36	5.40	
		Civics	18	5.4				Old English	18	5.40	
	4	Algebra	54	5.4	Physics	36	5.40	Bookkeeping ..	18	5.40	
		Geometry	36	5.45	English	144	5.40	Latin	72	5.40	
		Arithmetic	18	5.4	Political Econ.	18	5.40				
		Gen'l History	36	5.40	Botany	18	5.40	German	72	5.40	
		U. S. History	18	5.40	Eng. History	18	5.4				
		Civics	36	5.41	Com'l. Geog.	18	5.40				
		Physical Geog.	18	5.40	Com'l. Law	18	5.4				

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Emerson..	J. D. Reed	7	State Univ. of Nebr. 1.....	.....	Fremont, Neb. (Nor) 3.....
	Lois Willson	8	.....	I. S. N. S. 2....	.....
Emmetsburg..	E. O. Meredith.	3	Penn Col. 4.....	.....	.....
	Anna Bernard	5	U. of Wis. S.U.I.	I. S. N. S. 3....	.....
	Mabel Davis.....	6	S. U. I. 4.....	.....	.....
	Margaret Gorman.....	5	.....	I. S. N. S. 4....	.....
	H. E. Millir.....	5	Beuna Vista Col. 2 Charles City Col. 2.....	.....	.....
Estherville	J. L. Mishler, Supt.	1	Carthage Col. 4.....	.....	Rock Riv. Sem. 2.
	Faith Brown.....	6	Oberlin Col. ....	.....	.....
	Edna Mingus	6	S. U. I. ....	.....	.....
	Margaret Taylor.....	6	Ia. St. Col. 4....	.....	Cornell Col. 1. ..
	Jean McKellar.....	6	S. U. I. 2.....	I. S. N. S. 4....	.....
Exira.....	F. A. Nims... ..	6	U. of Neb. 2.....	.....	Fremont Normal School Neb. 1...
	Dena Statzell.....	..	Boston Col. 2.....	.....	.....
Fairfield ..	L. A. Power	3	I. W. U. 4.....	.....	So. Iowa Nov. 2..
	Martha E. Emry.....	6	S. U. I. 3.....	I. S. N. S. 2....	.....
	Nellie Jordan.....	5	Parsons Col. 4....	.....	.....
	Gertrude Aikens.....	5	Baldwin U. 4 Ohio .....	.....	Ger. Wallace Col. 2
	Martha Hutchinson	6	S. U. I. 2.....	.....	.....
	Harry W. Cooper.....	6	Parsons Col. 4 ..	.....	.....
	Uora Ball.....	1	Parsons Col. 4....	.....	New Eng. Con. 2
Farmington	A. T. S. Owen	2	Knox Col. 4.....	I. S. N. S. 1.....	.....
	Jessie Ford.....	8	.....	I. S. N. S. 1.....	St. Mary's Acad 4
Fayette. .	J. E. Moore.....	5	Union College 3 U. of Nebraska 1 .....	.....	Lincoln Nor. 1....
	Eleanor M. Garrison... ..	5	Cornell College 2 Upper Ia. U. 1.. ..	.....	Epworth Sem.
	Erma E. Cole.....	6	Upper Iowa U. 5. ....	.....	U. of Wis. Su. Sem.
	Jamuel Tift.....	1	Upper Iowa U. 3. ....	.....	Oelwein Bas. O. 1

Fonda.....	W. W. Bell.....	4	.....	I. S. N. 5.....	.....
	Irving Davis	6	Iowa College.....	.....	.....
	Grace Bradshaw.....	6	Cornell College....	.....	.....
Fontanelle	Frank Linderman.....	5	S. U. I. 3 Cornell Col. 1.. ..	.....	German Proseminar Chicago 2. ..
	Minnie D. Harmsen.....	6	Drake 4. ....	.....	Drake Prep. Sch. 3
	Florence Fenner.....	6	Drake 4½.....	.....	.....

-FOUR YEAR COURSES.

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Forest City.	Albert P. Heald	8	S. U. I. 4.....	.....	.....
	L. Claire Holson.....	8	S. U. I. 4.....	.....	.....
	Ralph E. Root.....	8	Morningside C. 4.	.....	.....
Ft. Dodge.	Mary A. Crawford.....	5	Iowa .....	.....	Harvard
	H. W. Moody.....	8	Cornell Col.....	.....	.....
	Olara Lowrey.....	5	Unl. of Chicago..	.....	.....
	Anna E. Keirulff.....	5	S. U. I.....	.....	.....
	Jessie L. Craig.....	5	Unl. of Chicago..	.....	.....
	Maude Bozarth.....	5	S. U. I.....	.....	.....
	Helen Maher.....	5	U. of Michigan..	.....	.....
	Forest Z. Wheeler.....	5	S. U. I.....	.....	.....
Ft. Madison..	Margaret Mason.....	5	Smith College....	.....	.....
	James C. Kendrick.....	5	Unl. Chi. ½ Iowa Wesleyan 2..	I. S. N. S. 2.....	.....
	Owen L. Lovan.....	6	Unl. Ill. ½ Ewing Col. 7..	S. Ill. Nor. Unl. ½	Dixon Col. 1.....
	Nellie Kennedy.....	5	Iowa College 4....	.....	.....
	Lucia Otto	6	S. U. I. 4.....	.....	.....
	Marie Gardner.....	5	Gram. Eng. Sem. Milwaukee, Wis. 3	.....	.....
Galva	F. L. Benschaw.....	4	.....	.....	Highland P. Col. 8
	Sophia Olmsted.....	6	U. of Wis. 4.....	.....	.....
	E. Pearl Fancolly..	6	.....	I. S. N. S. Sum. S.	Drake Sum. Sch..
Garden Grove..	A. L. Lyon.....	6	.....	I. S. N. S. 1.....	Woodbine 4.....
	Mary Jane McCrea	7	Parsons Col. 3 ..	.....	Corning Acad. 3..
	Louise E. Twinam.....	7	Parsons Col. 4 ..	.....	Parsons Acad. 3..
Garner....	W. J. Jerome	4	Cornell Col. 1.....	.....	N. Ia. Nor. Col. 8
	Jessica I. Graham.....	4	Coe College 4 .....	.....	Shueyville Nor. 3
	Evangeline Grawe.....	6	.....	I. S. N. S. 7 terms	.....
	H. I. Freeman.....	6	.....	I. S. N. S. 1 term	Levens Pt., Wis. 1. Oakosh, Wis. ½
Gilmore City..	L. A. Wilson	8	.....	.....	Humboldt Col. 2..
	Dollie Killgore.....	9	.....	.....	Drake 1.....
Gladbrook	H. B. Shoemaker	8	Upper Ia. Univ. 6	.....	.....
	O. E. Thomas.....	8	.....	I. S. N. S. 1 .....	.....

—FOUR YEAR COURSES.

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in state Normal.	Years in other institutions above high school grade.
Glenwood.	L. H. Maus.....	2	Neb. Wes. Univ. 7	.....	.....
	Fannie O. Ames.....	6	Drake $\frac{3}{4}$	I. S. N. S. $\frac{3}{4}$.....	.....
	Ellen C. Jackson.....	6	.....	I. S. N. S. 2.....	.....
	Francis Towalee.....	5	Tabor Col. 2 Uni. Kan. 3..	.....	.....
	Susan Jewell.....	6	Taber Col. 4.....	.....	.....
Glidden...	J. W. Atchley.....	8	.....	I. S. N. S. 4.....	.....
	Inez Palmer.....	5	.....	I. S. N. S. 2.....	.....
	Florence Odell.....	5	S. U. I. 2.....	.....	.....
	Alma Reichert.....	5	.....	I. S. N. S. 3.....	.....
Goldfield..	O. H. Benson.....	6	S. U. I. Pt. of Yr..	I. S. N. S. -Pt. of Yr.	Epworth Sem. 3..
	Mrs. O. A. Hoelscher.....	8	Cornell Col. 4.....	.....	Cornell Acad. 3..
Gowrie....	C. E. Cavett.....	7	.....	I. S. N. S. 4.....	.....
	Mrs. O. E. Cavett.....	8	.....	I. S. N. S. 4.....	.....
Grand Junction	Thomas R. Amlie.....	1	S. U. I. 2.....	I. S. N. S. $2\frac{1}{2}$	Uni. of Chi. $1\frac{1}{2}$..
	Calistine Ineze.....	7	.....	I. S. N. S. $2\frac{1}{2}$.....	.....
Grand River ...	H. L. Oesner.....	11	Drake.....	.....	High Park.....
	Kate Hull.....	12	.....	I. S. N. S.....	.....
Grant Park.... (Des Moines)	T. E. McCarty.....	4	.....	I. S. N. S.....	.....
	Hazel Davison.....	7	Drake Uni. 4.....	.....	.....
	Leona Garmon.....	8	Drake Uni. 2.....	.....	.....
Greene....	Benjamin Beardman.....	4	S. U. I 2.....	I. S. N. S. 3.....	.....
	Kate H. McDonald.....	7	Drake 4.....	I. S. N. S. 2.....	.....
	Mae M. Bower.....	7	Iowa State Col. 4.....	.....	.....
Greenfield	P. P. Sullivan.....	4	Drake $6\frac{1}{2}$.....	.....	.....
	Effie Cameron.....	7	Drake 4.....	.....	U. of Chicago. 1..
	Margaret Jackson.....	7	Tarkio Col. 3.....	.....	U. of Chicago 3. .
	D. R. Earl.....	2	.....	.....	.....

-FOUR YEAR COURSES.

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Grinnell...	Eugene Heneley.....	6	Iowa Col. 4.....	.....	Madison Sem.Sch
	Elizabeth Fisher.....	6	N. W. Univ. 4..	.....	.....
	Blanche Snider	6	Iowa Col. 4.....	.....	Grafton Nor.
	Emma Johnson.....	6	.....	.....	Sch. 5 wks.....
	Alice Dunham.....	5	Iowa Col. 5.....	.....	Univ of Chic 1...
	Katherine Macy.....	5	Iowa College 4.	.....	.....
	.....	.....	Wellesley Col. 1	.....	Sum. Sch. of
	Mable Dunbar.....	5	Iowa Col. 4 .....	.....	Wash. Univ....
	Sarah Nollen.....	5	Iowa College 3...	.....	Heidelberg Col.
	Ruth Field.....	7	Iowa College 4...	.....	Berlin, Germ'y 1
Griswold..	Walter I. Griffith.....	5	S. U. I. 4.....	I. S. N. S. 1....	.....
	G. U. Gordon.....	6	Indiana Col. 4...	.....	N. I. N. S.....
	Cora Selby.....	6	.....	I. S. N. S. 3 .....	.....
	J. Ella Baker	4	Columbia Col. 2	.....	.....
Grundy Center ..	.....	.....	Clarksbr'g, Col (Mo.) 1½.	Carbondale, Ill ¾	.....
	O. L. Love.....	3	.....	I. S. N. S. 2....	.....
	O. M. Parker.....	5	.....	I. S. N. S. 2....	.....
	Mary Green.....	4	.....	.....	Wheaton, Sem. (Mass) 3.....
	Maggie Gray.....	6	Coe College 4.....	.....	.....
	Clara Krause	6	.....	I. S. N. S. 2....	.....
Guthrie Center...	.....	.....	.....	.....	.....
	O. V. Williams.....	5	.....	Neb.State Nor.5	.....
	F. S. Bissar.....	.....	Iowa Col. 4.....	.....	.....
Guttenberg....	Eva Whitnell.....	.....	Coe Col. 4.....	.....	.....

	Charles F. Pye.....	4	Cornell Col. 3.	.....	Ellsworth Col. 1.
	.....	.....	Univ. of Texas 1	.....	.....
Hamburg.	Edwinna Bolton.....	8	Univ. of Iowa 2..	.....	.....
	Emma E. Halkofen	8	Univ. of Iowa 4.	.....	.....
	J. E. Olayton.....	4	S. U. I. 2.....	I. S. N. S. 4....	.....
	Lida Hodge	7	S. U. I. 3.....	.....	Simpson Col. 1..
	Helen C. Sayles.....	7	Iowa Col. 4 .....	.....	Ootey Col. 3.
Hampton	Lovena Toedt.....	.....	.....	.....	(Nevada, Mo.) Conserv.of Music
	O. W. Maxwell.....	2	Simpson Col 4....	.....	.....
	Verna Bernard.....	6	I. S. N. S. 2.....	.....	.....
	Ola A. Logan	4	I. S. N. S. 2.....	.....	.....
	Maude Stokes.....	5	Parsons Col. 4..	.....	.....
	.....	.....	Wessley Col. 1..	.....	.....
	Blanche Graham.....	6	Univ. Mich. 1	.....	.....
	.....	.....	Univ. Chi. 1.....	.....	Nor'n Ind. Nor. 1
	Robert G. Miller.....	1	Iowa State Col. 1.	.....	Cap. O'y Com.Col.1
	Lillian Newton	2	Iowa Col. 4.....	.....	.....

—FOUR YEAR COURSES.

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Harlan....	George H. Ballard.....	6	S. U. I. 8.....	I. S. N. 8 1½.....	N. Ind. Nor. Sch. 8
	Frances M. Gardner.....	7	S. U. I. 8.....	.....	.....
	May A. Brown.....	7	Simmons Col. 8.	I. S. N. 8. 1.....	.....
	Mary E. Polk.....	6	S. U. I. ....	.....	.....
	Mabel Ellis.....	2	Olivet Col. Mich 2	.....	Tabor Col. 1.....
	Letta Smith.....	2	.....	.....	.....
	Elsie E Whitford Music & Drawing.....	.....	.....	I. S. N. 8. ....	.....
Hartley ...	Willis J. Bell	8	.....	I. S. N. 8. 8½	Univ. of Wis. ½..
	Lila Crego.	6	Iowa State Col. 1.	I. S. N. 8. 1.....	Epworth Sem. ½..
	Maragret Mitchell	6	.....	I. S. N. 8 8 .....	.....
	Pearl Woodford.....	6	Morningside Col. 6	.....	.....
Hawarden	Samuel Thomas May.....	4	S. U. I & U of O. 2	.....	Nw Ind Nor Sch. 2
	Estellen Helen F.....	7	U. of Mich.....	.....	.....
	Alice Margretta Waldron	6	S. U. I.....	.....	.....
	Annie Moore....	7	U. of Nebr. 4...	.....	Special student U. of Colo. 1 term...
	Edith Virginia Logan.....	2	.....	.....	.....
Hedrisk..	H. F. Young	6	Parsons Col. 3....	.....	.....
	Erma L. Krout.....	8	Penn Col.....	I. S. N. 8.....	.....
	Bertha Ford, ce.....	4	.....	.....	.....
	Nellie Henry.....	2	.....	.....	.....
H man..	L. W. Fike.....	6	Wash. Univ. 4	3. E. Pa. St. Nor 2	.....
	Effe Longman .....	.....	.....	I. S. N. 8. 2.....	.....
Holstein...	R. A. Griffin.....	.....	Drake 6.....	.....	.....
	Ethel M. Thomas.....	8	Drake 4 .....	.....	.....
	Sue Snyder	2	Drake 4 .....	.....	.....
	Fred San.....	5	.....	.....	.....
Hubbard	Geo. A. Glenny.....	7	.....	I. S. N. 8 4.....	U. of Chi. ½.....
	Vera Lighthall.....	7	.....	I. S. N. 8. 2.....	.....
Humeston.	Ines F. Kelso	6	S. U. I. 4.....	.....	.....
	Myrtle A. Dungan....	8	Parsons Col. 3....	.....	.....
Hull.....	S. I. Neveln.....	7	Des Moines Col. 1	I. S. N. 8. 2 terms	Drake 1 term.
	Anna Donnelly	8	Parsons Col. 4....	.....	.....

—FOUR YEAR COURSES.

Preparation.	Yr's experience in H.S.	High School Courses.									
Degrees held.											
A. M., M. D., B. S.	7	Algebra	54	5 40	Physics	55	5 40	Electives	18	5	40
A. B.	8	Geometry	54	5 40	English	102	5 40	.....	.....	.....	.....
.....	7	Arithmetic	54	5 40	Phys. or Book-k.	18	5 40	.....	.....	.....	.....
A. M.	8	General Hist.	55	5 40	Botany	18	5 40	Com. Geog. and	18	5 40	.....
.....	.....	U. S. Hist.	18	5 40	Latin	26	5 40	Political Econ.	18	5 40	.....
.....	4	Civics	18	5 40	.....	.....	.....	German	72	5 40	.....
.....	.....	Physical Geog.	18	5 40	Latin	108	5 40	.....	.....	.....	.....
.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B. D. M. D. A. B.	6	Algebra	72	5 35	Physics	55	5 35	.....	.....	.....	.....
.....	8	Geometry	51	5 35	English	102	5 35	Word Analysis.	24	5 35	.....
M. D.	7 1/2	Arithmetic	55	5 35	Political Econ.	18	5 35	Reading	12	5 35	.....
B. S. D. P. S. B.	8	General Hist.	8	5 35	Botany	24	5 35	Zoology	18	5 35	.....
.....	.....	U. S. Hist.	14	5 35	Bookkeeping	18	5 35	Com'l Geog.	18	5 35	.....
.....	.....	Civics	24	5 35	.....	.....	.....	.....	.....	.....	.....
.....	.....	Physical Geog.	24	5 35	Latin	144	5 35	.....	.....	.....	.....
.....
Ph. D. B., B. S. ...	15	Algebra	54	5 35	Political Econ. ...	18	5 35	.....	.....	.....	.....
.....	8	Geom.	54	5 35	.....	.....	.....	Com. Arith. ...	86	5	.....
Ph. B. ....	.....	Arithmetic	18	5 35	Latin	144	5 35	Book Keeping ..	26	5 35	.....
.....	.....	Gen. History	54	5 35	.....	.....	.....	German	72	5 35	.....
A. B. ....	.....	U. S. History	14	5 35	German	72	5 35	Elective	86	5 35	.....
.....	.....	Civics	18	5 35	.....	.....	.....	Electives -	.....	.....	.....
.....	.....	Physical Geog.	14	5 35	Didactics	36	5 35	Arithmetic	18	5 35	.....
.....	.....	Physics	36	5 35	Reviews	36	5 35	U. S. History ..	18	5 35	.....
.....	.....	English	138	5 35	.....	.....	.....	Physiology	18	5 35	.....
.....	.....	Physiology	18	5 35	Latin	72	5 35	.....	.....	.....	.....
.....
B. D.	6	Algebra	54	5 35	Physical Geog.	18	5 35	Latin	96	5 35	.....
.....	2	Geometry	48	5 35	Physics	32	5 35	.....	.....	.....	.....
.....	1	Arithmetic	72	5 35	English	104	5 35	Eng. History ..	32	5 35	.....
.....	1	General Hist.	36	5 35	Physiology	18	5 35	Pol. History ..	20	5 35	.....
.....	.....	U. S. History	18	5 35	Political Econ.	12	5 35	Geology	12	5 35	.....
.....	.....	Civics	20	5 35	.....	.....	.....	.....	.....	.....	.....
A. B.	10	Algebra	40	5 35	U. S. History	30	5 35	English	92	4 25	.....
.....	.....	Geometry	36	5 35	Civics	36	5 35	Physiology	18	5 35	.....
.....	.....	Arithmetic	72	5 35	Physical Geog.	25	5 35	Political Econ.	18	5 35	.....
.....	.....	Gen. History	36	5 35	Physics	20	5 35	Latin	84	5 35	.....
.....
B. Pe. L. L. B. ...	7	Algebra	54	5 30	English	144	5 30	Botany	18	5 30	.....
B. Pe.	8	Geometry	51	5 30	Political Econ.	18	5 30	Reviews	26	5 30	.....
M. D.	8	Arithmetic	18	5 30	Zoology	18	5 30	.....	.....	.....	.....
.....	.....	Gen. History	55	5 30	Book-Keeping	18	5 30	German	144	5 30	.....
.....	.....	U. S. History	14	5 30	.....	.....	.....	Reviews	26	5 30	.....
.....	.....	Civics	18	5 30	Latin	102	5 30	.....	.....	.....	.....
.....	.....	Physics	36	5 30	Physical Geog.	18	5 30	.....	.....	.....	.....
.....
B. D. M. D.	4	Algebra	54	5 35	Civics	18	5 35	Political Econ. ..	12	5 35	.....
B. D.	2	Geometry	51	5 40	Physical Geog.	18	5 35	Botany	24	5 35	.....
.....	.....	Arithmetic	18	5 35	Physics	36	5 35	Book-keeping ..	12	5 35	.....
.....	.....	Gen. History	36	5 40	English Lit	126	5 40	Trig. Plane	18	5 40	.....
.....	.....	U. S. History	24	5 45	Physiology	18	5 35	Latin	108	5 40	.....
.....
Ph. B.	9	Algebra	54	5 35	U. S. History	18	5 35	English	144	5 35	.....
.....	1	Geometry	54	5 35	Civics	18	5 35	Political Econ. ..	18	5 35	.....
.....	.....	Arithmetic	54	5 35	Physical Geog.	18	5 35	.....	.....	.....	.....
.....	.....	Gen. History	36	5 35	Physics	36	5 35	.....	.....	.....	.....
.....
.....
A. B.	7	Algebra	54	5 40	U. S. History	18	5 35	English	108	2 30	.....
.....	.....	Geometry	55	5 40	Civics	18	5 35	Physiology	18	5 40	.....
.....	.....	Arithmetic	54	5 30	Physical Geog.	18	5 35	Political Econ. ..	18	5 40	.....
.....	.....	Gen. History	55	5 35	Physics	34	5 35	Botany	18	5 30	.....

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Humboldt.	O. S. Cory.....	4	S. U. I. 2.....	I. S. N. S. 3 ..	North Ind. Nor..
	Sedona L. Freemanbeck. . .	6	Des Moines Col. 1	I. S. N. S. 2.....	Drake 1 term.....
	Abigail H. Heaton	8	Parsons Col. 4.....	I. S. N. S. 3 1/2 ..	.....
	E. Beth Achenbach.....	7	S. U. I. 2.....	I. S. N. S. 4 ..	.....
	Mrs. Sally Coyle.....	8	S. U. I. 5.....	.....	.....
Ida Grove.	L. A. Ink.....	6	Mulenbry Col. 4.....	.....	East Stronds- burg. S..
	N. A. Burk	6	.....	Cent. Mich. 4.....	.....
	Helen Williams.....	6	S. U. I. 1.....	I. S. N. S. 2.....	.....
	Bertha Riedenschel.....	6	Rockford Col. 2..	.....	Rockford Prep. Col. 2.....
	Minnie Willis	6	.....	I. S. N. S. 3 ..	.....
	R. S. Whitley.....	1	Iowa Col. 4 1/2 ..	.....	Iowa Col. Acad. 1.
	Bertha Day, Music & Draw	.....	.....	.....	Drake 1 Chi. Nor. 1
	Marie Seward.....	6	Wellesley 4.....	.....	.....
	Clara M. Travis.....	.....	.....	I. S. N. S. 2.....	Drake-Sum. Sch.
	Corra B. Beach.....	6	Upper Iowa Uni. 4	.....	.....
Independence.	May Williams.....	4	U. of Mich. 1.....	.....	Uni. Ex. 1 course.
	Mrs. J. L. Buecheler....	5	.....	I. S. N. S. Summer	.....
	Sarah MacDonald.....	5	.....	I. S. N. S. 2.....	Lamar Col. 2 ter.
	Emma Funk.....	6	.....	I. S. N. S. 4.....	.....
	Zella Jewell.....	6	.....	.....	.....
	O. E. Smith.....	2	Simpson 4.....	.....	.....
	S. A. Krell	3	Simpson 4.....	.....	.....
Indianola.	Winifred Morris.....	7	S. U. I. 1.....	I. S. N. S. 1 1/2 ..	.....
	E. O. Jones.....	8	Simpson 2.....	.....	.....
	Anna B. Perry	7	Simpson 4.....	.....	.....
	Alma Robbins.....	6	Simpson 4.....	.....	.....
	Altha Haviland.....	7	Uni. of Ill. 3.....	.....	.....
	Lewis Currell.....	.....	Cornell Col. 1...	I. S. N. S. 3.....	.....
	Mabel Nash.....	.....	.....	I. S. N. S. 2.....	.....
Ionia...	Dora Kruger.....	.....	.....	I. S. N. S. 1.....	.....
	—Gorman.....	.....	.....	I. S. N. S.	Clinton Inst.

Iowa City.	S. E. Stevenson	1	.....	.....	.....
	E. R. Collins	1	.....	.....	So. Ia. Nor. Sch. 2
	Clementine Otto	6	.....	I. S. N. S. 1 ..	.....
	Harriet Clearman	7	.....	.....	.....
	Antonia J. Stober	6	.....	.....	U. of Chicago 1...
	Mabel Foster	6	.....	.....	.....
	Grace O'Hair.....	6	4.....	.....	.....
	F. H. Randall	6	.....	.....	.....
	A. D. Whedon	6	.....	.....	.....
	J. A. Meade	6	Col. 3.....	.....	Ia. State Col. 1...
	L. F. Meade	6	.....	.....	S. U. I. 2.....
	Mary Little	4	.....	.....	.....
	E. W. B. Mark	6	.....	I. S. N. S. 2 1/2 ..	Gen. Wes. Col. 2.
	Albert F. Siepert.....	.....	.....	.....	Bradley Polytech- nic..

—FOUR YEAR COURSES.

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Iowa Falls	H. E. Blackmar	1	S. U. I. 2	I. S. N. S. 3 .....	.....
	Imo Moler.	5	S. U. I. 4. ....	.....	.....
	Don Campbell.	6	.....	I. S. N. S. 4. ....	.....
	Elizabeth Carroll.	3	S. U. I. 4. ....	.....	.....
	Olara D. Brown.	5	.....	.....	Extensive work with tutors..
	Alice Clark	6	.....	.....	Work with tutor 5 Sum. terms at S. U. I. and o colleges.....
Jefferson..	F. E. Palmer	2	Iowa Col. 4. ....	.....	.....
	Nellie Dority	6	.....	I. S. N. S. 4. ....	.....
	Mayme Remick.	6	Cornell Col. 4. ....	.....	.....
	Flora Parsons.	6	Iowa Col. 4. ....	.....	.....
	David B. Mollravy	5	.....	I. S. N. S. 4. ....	.....
Jewell ...	A. R. Gardiner.	6	.....	.....	High. Pk. Col. 2. Drake sum. ses. S. U. I. sum. ses..
	Lena M. Mo'ing.	9	Univ. of Mo. 1 S U. I. 3..	.....	.....
Kanawha ..	George H. Mount .....	...	Parsons Col. 5 ..	I. S. N. S. 1 .....	.....
	Carl W. Maynard .....	...	Morningside Col. 4	.....	.....
Kellog	T. M. Phillips	7	.....	I. S. N. S. 2 terms	Newton Nor. C. 2
	Jay Gaines	1	Bur. Bapt. Col. 2..	.....	I. W. U. 2 terms..
Keokuk ...	William Aldrich .....	...	.....	.....	.....
	Jesse Benjamin	4	.....	S. N. Albany N. Y. 2	.....
	Elizabeth Ballard.	4	Wellesley Col. 4 U. of Chi. ¼..	.....	Private work in Ger. in Germ. 1½
	(1) A. Arthur Utt.	4	Cornell Col. 4. ....	.....	S. U. I. ¼
	Florence Backus	6	Oberlin Col. 4 ..	.....	U. of Chi. ¾ U. of Mich. ¼..
	Lucia G. Pittman	4	U. of Chicago 2..	.....	.....
	S. Marion Becker.	5	Rockford Col. 2 ..	I. S. N. S. 1½....	Chi. Nor. ½
	Bertha R. Craig	6	Newnham Col. ½ Cambridge Eng	.....	Stor. Sch. Lang. 1
	Alta Ritter	6	U. of Ind. 4. ....	.....	U. of Chi. 1.
	Harriet Solomon	6	.....	.....	.....
	Jessie Wilson	5	.....	.....	.....
	Marie Kiedaisch	3	U. of Chicago 4. ....	.....	.....

-FOUR YEAR COURSES.

1

1

1

.

E

P

M

.

P

HIGH SCHOOL STATISTICS

High school.	Names of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Keosauqua	David Williams	7	.....	Pa. State Nor 2..	.....
	Catheryne Cooke.....	8	.....	I. S. N. S. 6 wks..	.....
	Phyllis H. Roberts.....	8	.....	I. S. N. S. 10 wks	.....
Keota	Ohas. Yeager	6	S. U. I. 1.....	I. S. N. S. 4.....	.....
	F. Bernice Williams.....	7	.....	Drake Nor.....	.....
	Agnes Brown.....	4	.....	I. S. N. S.....	.....
Kingsley..	A. L. Halstead.....	5	.....	I. S. N. S. 4 .....	.....
	Mrs. Tripp.....	6	.....	.....	.....
	Miss McEachron.....	8	.....	I. S. N. S. 3 .....	.....
Knoxville.	S. G. Richards.....	2	Drake 2.....	.....	.....
	F. M. Frush	3	Shuntliff Col. 4..	.....	.....
	Earl B. Young.....	6	Coe 4 .....	.....	.....
	Leah Durand.....	6	Drake 5.....	.....	.....
	Elizabeth Bailey.....	6	.....	I. S. N. S. (Sum.) 2	Drake (Sum.) 3.. H. P. Col. (Sum.) 1
Lacona....	Ernest Tinkle	8	.....	I. S. N. S. 3 terms	.....
	Nellie Vale.....	9	Simpson Col.....	.....	.....
Lake City.	Theodore J. Saam.....	2	Lenox College 3..	.....	.....
	.....	.....	S. U. I 2	I. S. N. —1 term..	Ger. Pres. Sem 2
	Miss Goble	4	U. of Chicago 3..	.....	.....
	Alice Fairfield	5	Oberlin, Col. 4..	.....	.....
	Jane Slarata	5	S. U. I. 4 .....	.....	.....
Lake Mills	Arthur Bruce.....	5	.....	I. S. N. S. 1.....	.....
	W. H. Overmyer	6	Ohio Wes. 2 .....	.....	Ohio Nor. Uni. 4; Cor. U. (N.Y.).
	Florence M. Cate.....	7	Morningside Col 5	.....	.....
	Maud E. Thomas	7	.....	I. S. N. S. 2½.....	.....
Lake Park	O. F. Kuehne	8	.....	I. S. N. S. 4 .....	.....
	Margaret McCormick.....	8	.....	I. S. N. S. 1 .....	.....

—FOUR YEAR COURSES.

HIGH SCHOOL STATISTICS

High school.	Names of instructors.	Number of periods.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Lamoni ...	E. L. Kelley, Jr	4	S. U. I 8 .....	.....	Graceland Col. 2 ..
	Mary L. Sporleder.....	6	S. U. I 4 .....	.....	.....
	Grace M. Miller.. .....	..	Buena Vista Col. 3 .....	.....	.....
			S. U. I 1 .....	.....	.....
Lamont. ...	P. O. Arildson	8	N. W. U. (Evanston) 2 .....	.....	.....
	Maud M. Blunt.	8	Upper Ia. U. 4 .....	.....	.....
Lansing. ...	W. H. Ray	4	.....	I. S. N. S. 4	U. of Wis. 1 term S. Dakota Uni. 1 tm., S. U. I. 1 tm.
	Minnie L. Wilson.	6	I. S. N. S. 3 .....	.....	.....
	Georgia L. Whitley .....	..	Upper Iowa U. 6 .....	.....	.....
Laurens ...	W. H. Reeve	8	S. U. I. ('97)	I. S. N. S. ('95) ..	.....
	Gertrude Crane	7	Cornell College ..	I. S. N. S. ('03) ..	.....
	Juno Baker	6	Drake .....	.....	.....
Le Mars...	Alice Dilley.	8½	N. W. Univ. Lebanon, O. 8 ..	.....	.....
	Margaret Cummings.. ..	5	Iowa Col. 4 .....	.....	.....
	Katherine Ives	6	.....	I. S. N. S. 3 .....	.....
	Jessie Hellsell	6	Univ. Michigan 4 ..	.....	Ferry Hall, Lake Forest, Ill. 3
	Sylvia Smith	5	.....	I. S. N. S. 2 .....	.....
	W. F. Yingling	5	Valparaiso Uni. 4 ..	.....	.....
	W. A. Blackwell	5	Morningside C. 4 ..	.....	.....
	Martha Wasson	5	Knox Col. 4 .....	.....	.....
Lenox.	E. E. Kuhn	8	.....	I. S. N. S. 3 .....	.....
	Ella Lund	7	.....	I. S. N. S. 4 .....	.....
	Allie Nelson.	7	.....	I. S. N. S. 2 .....	.....
Leon	J. M. Pierce	6	.....	I. S. N. S. 4	Western Nor. 1 ..
	Hattie Drake	6	.....	.....	Valparaiso
	Grace Morrill.	8	.....	.....	.....

—FOUR YEAR COURSES.

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Lewis.....	Richard A. Smith.....	8	Cornell Col. 4.....		
	Edna Wells.....	8		I. S. N. S.....	
Lime..... Springs.	F. A. Welch.....	6	Univ. of Wis. 1½ Olx. Col. Ill. 4...		
	France O. Earhart.....				Lenox Col Ia. 4..
Lisbon	Payson W. Peterson.....	6	Beloit Col. 4 ...		
	Ethelda Burge.....	7	Cornell Col. 4.....		
	Laura Adams.....	6	Cornell Col. 4.....		
Little..... Sioux...	E. D. Leonard.....	11	Drake 1.....		Calhoun Co. Nor. School
	Lulu Reeves.....	8			Woodbine Nor. 1.
Livermore	J. A. Eckenrodt.....	6	H. Pr. Col 1 ...	I. S. N. S. 1.....	N. Springs Sem. 2
	Emma Arent.....	7		I. S. N. S. 4.....	
	Mrs. O. Hunt.....	8		I. S. N. S. 8.....	
Lorimor ..	J. F. Groves.....	5	Ewing Bap. Col. 7	Ill. St. Nor. 1....	
	Mrs. L. B. Cain.....	7			Normal Sch. 2...
Lyons.....	J. R. Bowman.....	1	Iowa Col. 3.....		
	T. H. Ziegler.....	3	Iowa Col. 4.....		
	Katheryn M. Taylor.....	5	S. U. I. 5.....		
	Elizabeth N. Blanding.....	6	John B. Stetson U.		Univ. of Chi.....
	Edith L. Long.....	5	N. W. Univ. 4....		
	R. E. Scott.....	6	Univ. of Chi. 1½.	I. S. N. S. 2.....	
	H. D. Rosenberg.....	9	Addison Col 5....		
Malcolm ..	C. E. Shutt.....	8	Kan. State Univ. 5	Kan. State Nor. 1	
	Fan Farmer Lilly.....	8	S. U. I. 4.....		C'y Nor. Sch. 1.. Burlington
Malvern ..	Owen P. Stewart.....	8	Neb. Wesleyan 3.		Neb. Wesleyan. 6
	Mae Miller.....			I. S. N. S.....	Western Normal.
	Bertha Williams..		Simpson Col.....	Nor. Ill. St. Nor.	
Manches- ter.	Amy Boogs.....	2	Cornell Col. 4.....		Univ. of Chi.....
	E. Ethel Cooper.....	5	Albion. Col. Mich		
	Maudie Graham.....	5	Cornell Col. 4.....		
	Elizabeth Williston.....	5	Oberlin Col. 4.....		
	Lucy Abel.....		Univ. of Kan. 4...		

—FOUR YEAR COURSES.

Preparations.		High School Courses.	
Degrees held.	Yr's experience in H. S.	Branches studied.	Number weeks. Less per week
A. B.	8	Algebra	72 5
B. D.	8	Geometry	36 5
		Arithmetic	18 5
		Gen. History	36 5
		U. S. History	18 5
		Algebra	72 5
		Geometry	72 5
B. S.	8	Arithmetic	36 5
B. S.	8	General Hist.	36 5
Ph. B.	11	Algebra	54 5
Ph. B.	9	Geometry	72 5
B. A.	1	Arithmetic	18 5
		General Hist.	36 5
		U. S. History	18 5
		Algebra	48 5
		Geometry	36 5
		Arithmetic	36 5
		General Hist.	36 5
		U. S. History	34 5
B. D.	7 1/2	Algebra	52 5
M. D.	7	Geometry	36 5
B. D.	1	Arithmetic	36 5
		General Hist.	36 5
		U. S. History	54 5
		Civics	34 5
B. S.	4	Algebra	36 5
	10	Geometry	48 5
		Arithmetic	36 5
		General Hist.	72 5
A. M.	16	Algebra	57 5
Ph. B.	8	Geometry	57 5
Ph. B.	8	Arithmetic	36 5
B. S. M. S.	8	General Hist.	36 5
A. B.	1	U. S. Hist.	18 5
B. D.	5	Civics	18 5
	8		
A. M.	7	Algebra	54 5
		Geometry	54 5
Ph. D.	1	Arithmetic	18 5
		General Hist.	36 5
		U. S. Hist.	18 5
		Civics	18 5
		Physical Geog.	18 5
B. S.	5	Algebra	54 5
B. S.	16	Geometry	54 5
	6	Arithmetic	18 5
		General Hist.	36 5
		Algebra	54 5
		Geometry	54 5
A. M.	8	Arithmetic	18 5
A. B.	8	General Hist.	36 5
B. S.	1 1/2	U. S. Hist.	18 5
	4	Civics	18 5
		tical Econ.	18 5
		any	18 5
		onomy	18 5
		n	72 5
		lish	108 5
		siology.	12 5
		tical Econ.	16 5
		siology ...	19 5
		tical Econ.	18 5
		any ..	18 5
		n	144 5
		tical Econ.	12 5
		any	24 5
		lo	144 1
		manship ..	36 4
		n	72 5
		r-keeping.	18 5
		d Analysis.	18 5
		otics	36 5
		n	108 5
		lish.	144 5
		siology.	18 5
		tical Econ.	18 5
		ny	19 5
		n	152 5
		nan.	152 5
		n	72 5
		nan.	72 5
		ical Econ.	18 5
		ny	18 5
		.....	144 5
		l Arith.	18 5
		keeping ..	18 5
		nan.	72 5
		ogy.	18 5
		ical Econ.	18 5

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Manilla...	J. O. Richter.....	5	Palmer Col. 6.	I. S. N. S. 1.....	.....
	Fannie Potter.....	5	Union Ch. Col. 1.		
	Mayme Hurd.....	5	Upper Ia. Univ. 5. Upper Ia. Univ. 7.		
Manning..	O. J. Johnson.....	8	.....	I. S. N. 5.....	Valparaiso 6.....
	Mattie W. Morrison.....	6	Tabor 4.....		Tabor Academy 1
	Raymond B. Leland.....	7	.....		.....
	Henry Sievers.....	7	Rendsberg (Ger.) 2		.....
Mapleton.	G. L. Weaver.....	8	.....	.....	Valparaiso 3.....
	Mary E. Rice.....	6	Iowa Col. 4.		U. of Chi. 1.....
	Cosette Leathers.....	6	S. U. I. 2.....		.....
Maquoketa. ...	Mildred Clark.....	5	.....	I. S. N. S. 2.....	Lake Erie Col. 2.
	Eva M. Beyerly.....	6	U. of Mich. 3.....		Oberlin Col. 2..
	Ethel M. Wilson.....	6	Oberlin Col. 4.....		.....
	Grace M. Behr.....	6	Oberlin Col. 4.....		Kan. State Nor. 1 U. of Chi. 1.....
Marathon.	E J Feuling.....	4	.....	I. S. N. S. 2.....	U. of Chi. 1 term.
	Kate L. Morse.....	8	.....	I. S. N. S. 2.....	.....
	Lura Hawk.....	4	.....	I. S. N. S. 2.....	.....
Marcus....	R. A. Fenton.....	.....	.....	I. S. N. S. 2.....	.....
	Mabel Payton.....	.....	.....	I. S. N. S. 2.....	.....
	Hellen Wittick.....	.....	.....	.....	Detroit School of Music.....
Marengo.	O. H. Carson.....	2	Oberlin Col. 4.....	.....	.....
	Mary D. Hall.....	6	ake 4.....		
	Ornella Hermann.....	6	S. U. I. 31-6.....		
	Elizabeth Willard.....	5	Oberlin Col. 4.....		
	E. A. Stephenson.....	2	Oberlin Col. 4.....		
Marion....	Evangeline Jenkins.....	6	Western Reserve Woman's Col. 2..	I. S. N. S. 4.....	Carlton Col. 2....
	Lulu B. Secrist.....	6	Ooe Col. 4.....		.....
	Anna Singer.....	5	.....		.....
	Gilbert D. Deers.....	5	Franklin Col. 4 (Ind.)		U. of Chicago 1/4.
	L. R. Marshall.....	8	Oxford Col. 1 (O.)		Lenox Col. 80.
	Alice E. Duffy.....	4	U. of Chicago 1...		of Chicago 1/4. Berkeley Univ. 1/4 H. P. Nor. 1/4....

—FOUR YEAR COURSES.

Preparation.		High School Courses.
Degrees held.	Yr's experience in H. S.	Branches studied.
M. D., A. B. ...	13½	Algebra. Geometry Arithmet.
Ph. B. ....	...	General I
Ph. B. ....	...	U. S. Hist
		Civics ...
		Physical (
		Physios..
		English..
B. S.	18	Algebra
A. B.	1	Geometry
M. D. ....	...	Arithmet
A. B.	14	General I
		U. S. His
		Civics ...
B. S.	16	Algebra.
B. S.	8	Geometry
	2	Arithmet
		General I
		U. S. His
		Civics ...
		Algebra.
	5	Geometry
A. B., B. D.	6	Arithmet
A. B.	4	General I
A. B.	8	
B. D., M. D.	2	Algebra.
B. D. ....	..	Geometry
B. D. ....	..	Arithmet
	..	General I
	..	U. S. His
	..	Civics ...
B. D. ....	..	Algebra.
B. D. ....	..	Geometry
	..	Arithmet
	..	General I
	..	U. S. His
A. B., A. M.	21	Algebra.
B. Ph.	4	Geometry
B. Ph.	2	Arithmet
A. B.	2	General I
A. B., A. M. ....	...	U. S. Hi
		Civics ...
Ph B.	3	Algebra.
B. A.	2	Eng. His
B. D., M. D.	6	U. S. His
		Physios..
Ph. B.	8	English..
		Latin....
	21	German.
	16	Geometry

226

REPORT OF THE

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in state Normal.	Years in other institutions above high school grade.
Marshall-town	E. V. Brumbaugh.....	1	Midland Col. 3 Baker Univ 1.....		Wabash Col. ½ U. of Chicago....
	Katharyn Morgan ..	4	Nebr. State U. 2		
	Fannie A. Quaife.....	5	Upper Ia. U. 3...	I. S. N. S. (Sum Sc)	S. U. I. (Sum Sch)
	Igerna Mirian Getz	5	Downer Col. 3. (Milwaukee)		Miss Baldwin's Sc. Bryn Mawr 1.....
	Naomi Achenbach.....	5	S. U. I. 2 ..	I. S. N. S. 4.....	Minn. Seaside Sta 6 weeks.....
	Julia R. Radmore.....	5	S. U. I. 4....		
	Harriet Schulder.	5		Ohio State N. 2..	
	Edna Stone ..	5		I. S. N. S. 2 ..	U. of Neb. (Sum)
	Esse V. Hathaway.....	5	U. of Chicago 2..		Chaut. N Y (Sum)
	Carl Kent ..	5	S. U. I. 6.....		
	A. G. Karge.....				U. of Chicago 1...
	Rachel Currey.....	5	Northwestern U. 2 Wellesley Col. 2.		
Mason City	Eather L. Bissell.....	8	Cornell Col. 8½ ..		Cornell Acad. 1½ U. of C. 2 quarters
	Mayme McMahon.....	5	U. of Wis.....		
	John M. Dunkerton.....	5		I. S. N. S. 4 ..	
	Winworth Williams.....	5	Drake 4 ..		
	Jesse W. Warner ..	5	U. of Wis 2.....		
	Amy Dorothy Dunkin.....	5	S. U. I. 4.....		
	Mary Louise Quinn.....	5	R. I. State Col. 5.		
	Anna Waldo Stanbery.....	5	Cornell Col. 4....		
	Mae Telford ..	5	U. of Wis. 4 ..		
Mediapolis	Leu Richards ..	5	Iowa Col. 4.....		
	Eleanor McLaughlin.....	5	S. U. I. 3.....		
	J. C. McGlade.....	6	Parsons Col. 5....	I. S. N. S. ½.....	
	Mary L. Jamison.....	6	Parsons Col. and U of Nebr. 5. ...		
Milo.....	Grace M. Holmes.....		S. U. I. 4.....		
	A. N. Smith.	4	Drake 2 sum. trms		Highland Park C. 1½, Fairfield A.
Milton	Frank Jarvis.....	6	Western Col. 3. ...	N. Indiana Nor. 1	Drake, H. P. Col. and Dixon, Ill. 1 term each.
	Zaldee Griffith.....	6	Ames 4.....		
	Kate Wise.....	6			Southern Ia. Nor.
Missouri Valley..	J. H. Beveridge.....				
	S. M. Wallace.....	6	Lenox Col. 4.....		
	Creanor Lister.....	6	Ottawa Uni. 4....		
	Minnie Petrashet.....	6	U. of Nebraska 4.		
	Flora M. Koch ..	6	U. of Minnesota 4		
	Chas. E. Tredway.....	6		Kansas State N. 3	

—FOUR YEAR COURSES.

HIGH SCHOOL STATISTICS

High school.	Names of instructors.	Number of periods.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Mitchellville..	Ernest Coad.....	8	Burlington Col. 4		Highland Park 1
	Nell Rae.....	8	Drake 4.	I. S. N. S. 1	U. of Chi. 1qr..
Monona...	R. H. Sylvester.....	6	.....	I. S. N. S. 3 .....	.....
	M. Winifred Schmid.....	7	Upper Ia. U. 4....	.....	.....
	Florence Butler (Has classes in gram. room also)...	2	.....	I. S. N. S. 2 .....	.....
Montezuma..	O. E. Douglass, Supt.	4	Central U. of Ia. 4		U. of Chi. 2.
	M. O. Roark, Prin.....	7	Indiana Uni. 2....		Cen. Nor. Col. 4
	Ida J. McKee.....	6	.....	I. S. N. S. 1	Danville, Ind..
	Mary Raymond	6	Iowa Col. 4.....		U. of Wis 5
Monticello	John E. Foster.....	.....	.....		.....
	Mary I. Jarman.....	6	.....	I. S. N. S. 1.. ....	.....
	Nancy G. Carroll.....	6	S. U. I. 4		S. U. I. ½
	Mildred I. Bates	6	.....	I. S. N. S. 2.....	.....
Montour ..	Julius H. Rhode	12	Cornell Col. 1.	I. S. N. S., sum. T. ....	.....
	Mrs. L. Mae Banks .....	.....	Ia. State Col. 4....	.....	.....
Morning-Sun.	L. T. Hill Supt.....	5	Haverford Col. 4..		.....
	Katharine Paine.....	6	S. U. I. 4 .....		.....
	Nora A. Cosette (Music)...	4	Monmouth Col. 3.		.....
	Elizabeth Roe.....	6	Ill. Wesleyan U. 3		.....
Mt. Ayr...	Ad m'Pickett.....	5	Ill. Wesleyan 4....		Highland Park 1¼
			Simpson Col. 1....		Greer Col. ¼.....
	Lulu Mills.....	7	S. U. I. 4	I. S. N. S. ¾ .....	.....
	Eva Stahl	7	Simpson Col. 4....		.....
Mt. Pleasant.	Fa. Remick	1	Simpson Col. 1....		.....
			Drake 1 .....		.....
	B. Francis.....	3	S. U. I.	I. S. N. S. ....	.....
	Lida A. Pittman.....	4	I. W. U. 2½ .....		.....
	Allena Mitzenberg.....	6	O. S. U. ....		.....
	Mrs. Frank T. Stevens	4	Lawrence Univ....		Cook Co. Nor. Chi.
Mt. Vernon.	Harry Weber.....	6	Appleton Wis...		Battle Creek Col.
			S. U. I.		Michigan.....
	L. T. Newton	6	Ohio Wes. Univ. 4	Albany N. Y. ....	.....
	M. Lillian Smedley.....	6	Cornell Col 4.....	St. Nor. Col 1....	.....
	Jeannette Sniffen.....	6	Cornell Col. 4....		.....

—FOUR YEAR COURSES.

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Moulton..	G. W. Bryan....	4	Oskaloosa Col. 2..		Moulton Nor. 2..
	Lula E. Bryan.....	6	Drake 4.....		
	Lillian Cunningham	6	Univ. of Neb. 2..		Central Univ. 1
	Edna Wilson			State Nor. Kirksville Mo. 4	U. of Chi. 1 term.
Murray..	G. E. Wright ...	8	Univ. of Ill. 3..		Danville, Ind. 1..
	Ora Crisswell.....	8	Simpson Col. 2 ..		Austin Col. 4.....
Muscatine	R. M. Arey.....	4	S. U. I. 2.	I. S. N. S. 4.....	
	Katherine Mauthe	6	S. J. I. 4.....		
	Ethel Jaynes	6	Univ. of Chi. 4..		
	Mabel V. Hoffman	8	S. U. I. 5.....		
	Eleanor Lowden	5	Iowa Col. 8. Radcliffe Col. 1..		Stuttgart Acad. 8
	Helen V. E. Chase.....	6	Vassar Col. 2.		U. of Chi. 2½.....
	Jessie P. Hastings.....	6	S. U. I. 8.....		
	Sadie Beardslee.....	6	N. W. Univ. 8..		
	Mary E. Whiches.....	6	Univ. of Mich. 2..		
Mystic	John C. DeMar.....	4	Drake 2.....		So. Iowa Nor, 3 ..
	Mary Llewelyn.....	7			
	Lillian Hughes	3	Edinburg Ladies College 5..		
McGregor.	Beniah Dimmist.....	5	U. of Chic. 2½ ..	I. S. N. S. 3.....	
	Ellen F. Roe.....	5	Carleton Col. 4 ..		U. of Minn. 1.....
	J. H. Dahm.....	6	Northfield, Minn. Col. in Belgium 4.		Cornell Col. 1 term
Nashua...	E. C. Hill	4	S. U. I. 4	I. S. N. S. 3.....	Hedrick Nor. 1...
	Mildred Hersline.....	6	S. U. I. 4.....		
	Florence Chaffee	5		A. N. Y. State Nor. 3	
	Kate A. Miller.....	5	Iowa Col. 4.....		
Neola	M. R. Hassel			I. S. N. S. 3	
	Carrie S. Taylor.....		Drake 2 Wis. State U. 2.....		
	Lillie M. Walters.....		S. U. I. 2. N. W. Univ. 2..		
New Hampton.	C. L. Woodfield.....	2	De Paw Univ. 5		U. of Chicago ½ ..
	Marthine Gabrilsen.....	6	Perdue Univ. 1		Decorah Acad. 1..
	Helen Chambers	6	U. of Wis. ½.....	I. S. N. S. 1½	U. of Chicago 1...
	Helen Hitchcock.....	6	Cornell Col. 4 ..		Or. Valley S. 4...
	Mary White.....	6	U. of Chicago 4..	I. S. N. S. ¼.....	
		6	Drake 1 Simpson Col. 4.....		
New Sharon..	P. M. Hersom	4			H. Pk. Col. 3.....
	Bess Bosquet.....	6	Iowa Col. 8.		Central Uni. 4.....
	Mrs. Allie Sheesley.....	4			

—FOUR YEAR COURSES.

HIGH SCHOOL STATISTICS

High school.	Name of instructor.	Number rec. period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Newell....	J. E. Candy.....	5	.....	I. S. N. S. 2½...	.....
	Dora Carter.....	7	Upper Ia. Uni. 2..	.....	.....
Newton...	E. J. H. Beard.....	2	Hamilton, Col., 4 N. Y.,.....	.....	.....
	Minnie B. King.....	7	Helmeth Col. 4; Canada. ....	.....	.....
	L. Vesta Beard	7	.....	.....	.....
	Lucy E. Hall	7	Drake 4. ....	.....	.....
	Maria C. Brace	7	Iowa College 4 ..	.....	.....
Nevada. ..	Anna O. Batman..	6	S. U. I. 1 term....	I. S. N. S. 1 term.	Corres. Work. U. of Chicago ..
	A. F. Probst.....	4	U. of Mich. 2 ....	.....	M. S. N. Col. 2½ Valparaiso Col. 1..
	Jennie J. Gustafson..	7	.....	I. S. N. S. 2	B. H. Col. ½. Cor. Course.
	Nellie C. Kinney	7	Drake 2.	I. S. N. S. 1	H. P. Nor..... Ferry Hall Sem. 1 U. of U 1 term.. Cor. Work in English.....
Nora Springs.	Edw. H Balm	4	Central Western, Warrenton, Mo. 4	.....	.....
	Chas. E. Cove	6	Upper Iowa 4. ....	.....	.....
	J. H. Underwood.	7	Beloit, College 1; Western Col. 1½; S. U. I. 2.....	.....	.....
	Lottie E. Temple.	7	.....	.....	.....
	S. Ross Buchanan	6	Nora Springs 2...	.....	.....
	Addie Catron	5	Upper Ia Uni.. 1. Nora Springs. 2 ..	.....	.....
	Faith Slocum.....	.....	Iowa. Col. Con. 8	.....	.....
	Alberta Aldis .....	.....	Memorial Uni. 2 Nora Springs 3..	.....	.....
North English.	Frank W. Shultis.	5	Iowa State Col. ½	I. S. N. S. 1 ..	.....
	J. W. Pierce	4	.....	I. S. N. S. ¼.	H. P. O. 2.
	Nettie Shultis.	2	.....	.....	H. P. C. 1
North- wood	Horton A. Dwelle	4	Cornell Col. 2 ....	.....	.....
	W. H. H. Hegemann	6	U. of Chi. 2. ....	.....	.....
	Margaret Scammon	7	Iowa Col. 4 .....	.....	.....
Oak Park	H. W. Mayne.....	3	Uni. of Minn. 2..	.....	N Ind. Nor. Col. ?
	Glenn Clark.....	6	Iowa Col. 4. ....	.....	Iowa Col. Acad. 1
	Mabel E. Hatton.....	6	Drake 2 .....	.....	.....
	Ins B. Robinson.....	..	Drake 2.....	.....	.....

—FOUR YEAR COURSES.

Preparation.		High School Courses.											
Degrees held.	Yrs experience in H.S.	Branches studied.	Number weeks.	Wks. per week.	Rec. period.	Branches studied.	Number weeks.	Wks. per week.	Rec. period.	Branches studied.	Number weeks.	Wks. per week.	Rec. period.
		Algebra	54	5		Geog.	35	5			18	5	15
	5	Geometry	54	5			18	5			18	5	15
	1	Arithmetic	54	5			35	5			72	5	35
		Genl Hist.	35	5			144	5					
		U. S. Hist.	54	5		Hy.	18	5					
A. B.	36	Algebra	54	5		Hy.	18	5			72	5	45
		Geometry	54	5									
A. B.	21	Arithmetic	18	5			144	5					
		General Hist.	35	5			35	5					
	17	U. S. History ..	18	5			35	5			18	5	45
A. B., Ph. B.	6	Civics	18	5							18	5	15
Ph. B.	2	Physics	35	5		eping. ...	18	5					
		English	126	5		ry.	35	5					
		Algebra	54	5			35	5			35	5	15
	8	Geometry	54	5		ammer }	35	5			18	5	35
	8	Arithmetic.	30	5		mp ... }	35	5			30	5	15
		Gen History ..	35	5		n Lds. ...	35	5			18	5	15
		Civics	18	5							18	5	15
		Physical Geog..	30	5									
	5 1/2												
		A.	54	5		ndy.	18	5			18	5	40
		G.	35	5			72	5			18	5	40
Ph B.	8	G.	35	5							18	5	40
A. B.	2	Ol.	18	5		oog	18	5			18	5	40
		Pl.	15	5		story.	18	5			72	5	40
		Pl.	35	5			18	5			72	5	40
B. A., M. A.		E.	126	5			108	5			18	5	40
	4	Pr.	18	5							18	5	40
		Latin	144	5		ry.	35	5					
	4												
		Algebra	54	5			18	5			18	5	40
M. Di.	10	Geometry	35	5		Geog.	18	5			18	5	40
B. Di.	5	Arithmetic	35	5			35	5			18	5	40
	2	Gen History ..	35	5			144	5			18	5	40
		U. S. History ..	35	5		gy.	18	5			72	5	40
		Algebra	54	5		Geog.	18	5			14	5	15
	14	Geometry	54	5			35	5					
	7	Gen. History }	54	5			144	5					
A. B.	3	Eng. History }	18	5		eping ...	18	5			18	5	15
		Amer. History ..	18	5			144	3	1				
		Civics	18	5			144	2	1				
B. A.	18	Algebra	54	5		Gen Hist.	18	5			8	5	15
Ph. D.		Geometry	54	5		nd Hist.	18	5			8	5	40
	5	U S History	18	5							8	5	40
B. Ph.	4	Civics	18	5			44	5			18	5	15
		Physics	35	5		story.	18	5					
		English	14	5		or Bot'y	18	5			18	5	40
		Physiology	14	5									
		Political Econ.	14	5			72	5					

HIGH SCHOOL STATISTICS

High school.	Name of instructor.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Olebolt...	Lealie I. Reed.....	2	S. U. I. 2.....	I. S. N. S. 4....	Harvard Col. ½
	Lavinia Mowry.....	5	.....	I. S. N. S. 8....	Western Nor ½..
	Gertrude Ingalls.....	7	Iowa Col. 4.....	.....	U. of Chi. ½.....
	Wilhelmina Kramer.....	2	.....	I. S. N. S. ½....	Fremont Nebr. Nor. Sch. ¾....
Oelwein...	L. B. Moffett.....	1	S. U. I. 2.....	I. S. N. S. 2....	U. of Chi. 1-6....
	Mae Oreswell.....	6	.....	I. S. N. S. 2½....	.....
	Perl Bemis.....	6	S. U. I. 4.....	.....	.....
	Mae Dolan.....	6	.....	I. S. N. S. 2....	.....
	Gertrude Ayers.....	6	.....	I. S. N. S. :.....	.....
Olin.....	T. J. Cowan.....	4	Iowa State Col. 2.....	.....	Western Nor. Col. 2 U of Chi ¾
	Erma Babcock.....	6	Mammoth Col. 4.....	I. S. N. S. 1....	.....
Orange City..	Sidney Hoffman.....	3	U. of Chi. 2....	.....	Tri. State Nor. 2
	Joseph L. Johnson.....	6	.....	I. S. N. S. 4.....	.....
	Alice M. Wilson.....	7	Iowa College 4....	I. S. N. S. 1.....	.....
Osage.....	H. E. LaRue.....	5	.....	.....	Highland Park..
	Geo. H. Sawyer.....	2	U. of Chi 4.....	.....	Cedar V. Sem. 2..
	Clara Rosa Wilson.....	6	S. U. I. 4½....	.....	.....
	Ethel E. McKinley.....	5	Ia. State Col. 2.....	.....	Nora Spgs. Sem. 2
	.....	.....	Cornell Col. 1....	.....	3. U. I. Sum. Ses.
	Elizabeth Fitz	6	.....	I. S. N. S. 3....	.....
Osceola....	W. R. Andrews.....	2	Amity Col. 1. Tarkio Col. 1. W. N. Col. 3.....	.....	.....
	Eliza Mitchell.....	4	.....	.....	.....
	Lula Mc Masters.....	4	.....	.....	.....
	Margaret Neal.....	6	Union Col. 4.....	.....	.....
	Ethel Smythe.....	6	Parsons Col. 4.....	.....	.....
Oskaloosa.	H. W. Hurt.....	4	I. W. U. & Ger. Col.	.....	Grad. Work U. of Chi..
	Helen M. Handy.....	6	N. W. Univ. ....	.....	.....
	Alfred Williams.....	6	Tarkio Col.....	.....	Grad. Work U. of Chi..
	Ada M. Haskell.....	5	Penn Col.....	.....	U. of Chi.
	Mable Emerick.....	6	Penn Col.....	I. S. N. S.	U. of Chi.
	Mary C. Dobyns.....	5	U. of Chi.....	.....	Visitation Acad..
	John E. Hirst.....	6	Drake.....	I. S. N. S.	N. Ill. Nor.....
	Jessie L. Duboc.....	7	Shurtliff Col. Penn Col..	.....	Des Moines Col..
	Lily McCune.....	6	Penn Col.....	I. S. N. S. ....	.....
	Maude Harbach.....	7	Penn Col. Bryn Mawr..	.....	U. of Chi.
	Harry Goodrich.....	7	I. W. U.....	.....	.....
	Sara A. Williams.....	1	.....	.....	New Sch Method Des Moines Music College 2..

—FOUR YEAR COURSES.

Preparation.	<div>5</div> <div>4</div>	High School Courses.
--------------	---------------------------	----------------------

HIGH SCHOOL STATISTICS

High school.	Names of instructors.	Number of periods.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Ottumwa.	J. E. Roberts, Prin.....		ates Col., Mo.....		
	Ests M. Bardwell.....		U. of Chi.		N. W. Nor., Ill..
	Lily Belland.....		U. of Chi.		Grad. Work U. of Chi..
	Helen Bryden.....			So. Ill. State Nor.	Cor. Danville N.Y.
					Cor. Chautau N.Y.
					Nat. Cor. Fenton, Mich..
	W. T. Emery.....		Beloit Col.		U. of Chi. 1 term.
	Mary E. Gardner.....		Univ. of Neb.....		
	Louise Hale.....		Mt. Holyoke.....		Grad. Work at Harvard..
	Calla M. Hand.....		Iowa Col.....		Cornell U. Sum. Sch. U. of Chi. Sum. Sch..
	C. A. Harpster.....		Baker U., Kans..		
	J. L. Kinsey.....		Miami Univ.....		U. of Chi. 1 Sum. qr
					Lima Tr. Sch. 1 Sum. qr Oxford, O
	Frances G. Perkins.....		U. of Wis.		U. of Chi. 1 qr....
Oxford Junction	Joseph W. Fouts.....	6	Drake 4.....		Chi. U. 1
	Josephine Sutherland.....	8	Coe 4.....		
Panora... (Guthrie county H. S.)	L. E. Campbell.....	5		I. S. N. S. 2 ..	
	Minnie E. Jennings.....	4		I. S. N. S. 1 ..	
	Nina Hohanshelt	5	Simpson Col. 4...		
	Lulu B. Smith.....	6	Parsons Col. 4...		
	Jas. A. King.....	7	Simpson Col. 3...		
	Henry Ness.....	8	I. S. C. 3.....	N. Ill. Nor. 3 ..	
	H. E. Ilsley.....	4	Coe 4, S. U. I. 1..		
Parkersburg...	J. H. Wood	5	Drake U. 5.....		
	Kenneth W. Colgrove.....	7		I. S. N. S. 4 ..	
	Edna M. Windolf.....	8		I. S. N. S. 8 ..	
Paullina ..	E. E. Martin.....	8	Hanover College (Ind.) 6.....		U. of Louisville (Law) 2.....
	Kate M. Smith	6	Iowa Col.....		
	J. H. Bantley (M. sic).....	1	Les. per week....		
Pella	Wm. C. Farmer.....	4	Central Col. 4, I. W. U. 1	I. S. N. S. Sum..	U. of Chi. Sum. qr Highland Park 1
	Lynn S. Anderson	6	Cornell Col. 3....	I. S. N. S. 1 Sum..	Drake Sum. Sch.
	Faye B. Gilbertson.....	6	Park Col 4		Drake Sum. Sch.

—FOUR YEAR COURSES.

Preparation.		High School Courses.											
Degrees held.	Yr's experience in H. S.	Branches studied.	Number weeks.	Rec. per week.	Rec. period.	Branches studied.	Number weeks.	Rec. per week.	Rec. period.	Branches studied.	Number weeks.	Rec. per week.	Rec. period.
A. B.....	10	Algebra.....	54	4	40					Astronomy.....	19	4	40
B. S.....		Geometry.....	54	4	40	Electives.—				Botany.....	14	4	40
		Arithmetic.....	14	4	40	Latin.....	152	4	40	Zoology.....	34	4	40
A. B.....	8	U. S. History.....	36	4	40	German.....	78	4	40	Eng. History.....	34	4	40
		Physical Geog.....	36	4	40	Chemistry.....	36	4	40	Gen'l. History.....	34	4	40
		English.....	152	4	40	Geometry Solid.....	19	4	40	Physics.....	34	4	40
		Physiology.....	19	4	40	Trigonometry.....	19	4	40				
B. S.....	5												
A. S.....	4												
A. B.....	4												
Ph. B.....	8												
Ph. B.....	8												
A. B.....	4												
B. S. M. S.....	8												
B. S.....													
Ph. D.....	6	Algebra.....	74	5	35	Civics.....	40	1	30	Political Econ.....	14	1	30
A. M.....	8	Geometry.....	54	5	35	Physical Geog.....	14	2	30	Chemistry.....	21	6	30
		Arithmetic.....	38	5	30	Physics.....	10	5	4	Latin.....	72	4	35
		General Hist.....	36	5	30	English.....	152	5	30				
		U. S. History.....	36	5	40	Physiology.....	19	5	30				
B. Di.....	8	Algebra.....	54	5	40	English.....	108	5	40				
	3	Geometry.....	52	5	40	Physiology.....	24	2	40	Physical Geog.....	14	6	45
Ph. B.....	24	Arithmetic.....	76	5	45	Political Econ.....	16	5	45	Geology.....	34	5	45
B. A.....	6	General Hist.....	36	5	45	German.....	72	5	40	Zoology.....	14	5	45
B. S.....	1	U. S. History.....	24	5	45	Adv. Literature.....	24	5	40	Word Analysis.....	14	5	45
	1	Civics.....	12	5	45	Latin.....	105	5	40	Chemistry.....	24	5	45
B. S., M. S.....	6	Physics.....	35	5	45								
B. Pe., Ph. B.....	6	Algebra.....	57	5	35	English.....	152	5	35	Book-keeping.....	19	5	35
M. Di.....		Geometry.....	57	5	35	Physiology.....	19	5	35	Zoology.....	19	5	35
B. Di.....	1	Arithmetic.....	18	5	35	Botany.....	19	5	35	Eng. History or			
		General Hist.....	36	5	35					Coml. Geog.....	19	5	35
		U. S. History.....	19	5	35	Latin.....	152	5	35	Political Econ.....	19	5	35
		Civics.....	19	5	35	Word Analysis.....	19	5	35	Elective.....	19	5	35
		Physical Geog.....	19	5	35	Mental Arith.....	19	5	35				
		Physics.....	33	5	35								
A. B., L. L. B.....	4	Algebra.....	72	5	40	English.....	136	5	40	Physiology.....	36	5	40
A. B.....	1	Geometry.....	38	5	40	Political Econ.....	14	5	40	U. S. History.....	36	5	40
		Arithmetic.....	18	5	40	Botany.....	14	5	40	Solid Geometry.....	18	5	40
		General Hist.....	32	5	40	Zoology.....	19	5	40	Chemistry.....	18	5	40
		Civics.....	38	5	40	Book-keeping.....	36	5	40				
		Physical Geog.....	18	5	40	Latin.....	106	5	40				
		Physics.....	36	5	40								
Ph. B., A. M.....		Algebra.....	72	5	35	Civics.....	14	5	35	Political Econ.....	14	5	35
		Geometry.....	54	5	35	Physical Geog.....	14	5	35	Botany.....	14	5	35
		Arithmetic.....	18	5	35	Physics.....	34	5	35	Book-keeping.....	14	5	35
	8	General Hist.....	36	5	35	English.....	104	5	35	Hist. of Eng. Lit.....	14	5	35
A. B.....	1	U. S. History.....	14	5	35	Physiology.....	14	5	35	Latin.....	104	5	35

HIGH SCHOOL STATISTICS

High school.	Name of instructor.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Perry	Agnes E. Heightshoe	5	.....	I. S. N. S. 3.....	.....
	Dora D. Clark	6	.....	I. S. N. S. 2.....	.....
	Saidie O. Moore	6	Uni. Chicago 1-6 Simpson Col. 4.	.....	.....
	Mollie Kelly	6	.....	I. S. N. S. 2½.....	.....
	Susan Kersteller	6	S. U. I. 2	I. S. N. S. 3.....	.....
Peterson..	E. G. Clark	7	.....	I. S. N. S. 4.....	.....
	Grace Simpson	8	.....	I. S. N. S. 3.....	.....
Pleasant-ville.	W. C. Kennedy	9	.....	I. S. N. S.	Birmingham A. S Int. Cor. School, Scranton, Pa. 3.
	Carnie Watkins	8	.....	.....	.....
Postville ..	Arthur Wilson	4	Cornell Col. 4.....	.....	.....
	Ethel McEwen	6	Iowa Col. 4 U. of Wis. 1....	.....	Amer. Classical Col., Rome 1...
	Oda Hall	7	Iowa Col. 4.....	.....	.....
Prairie City	Claude O. Smith	6	Drake 4 .....	.....	Seminary Marys- ville Mo. 2..... Chillicothe Nor½.
	Nellie I. Delarue	8	Drake .....	.....	.....
Pringhar.	H. A. Mitchell	6	Green College.... Hoopeston Ill 2.	.....	.....
	Laura Rathbun	6	Ostawa U. 4 Kan.	.....	.....
	Juliette Harmon	7	Upper Ia. U 1½.	.....	.....
Randolph..	Allan Peterson	4	.....	I. S. N. S. 3.....	.....
	Alice B. Story	5	Simpson Col. 4....	.....	.....
	Susie Wright	5	Simpson Col. 3....	.....	.....
Red Oak...	Ralph J. Buck	2	U. of Neb. 5.....	.....	.....
	Rachel Eddelman	5	Buchnell U. 4.....	.....	.....
	Luela Wright	6	S. U. I. 2	I. S. N. S. 4.....	.....
	Nina Holmes	6	Cornell Col. 4.....	.....	.....
	Lela Tullis	6	N. W. Uni. 4 .....	.....	.....
	Robert Swaine	6	S. U. I. 3.....	.....	.....
	Merlyn Call	6	S. U. I. 4 .....	.....	.....
	Eugene Spencer	6	U. of Neb. 3½.....	.....	.....
Reinbeck..	Thos. E. Johnson	5	Uni. Neb. 3 .....	.....	.....
	.....	.....	Uni. Neb. Sum 3. S. U. I. Sum. 1..	.....	Woodbine Nor....
	Ione Westcott	7	Lenox Col 4 .....	.....	.....
.....	Emma. O Bruett	6	Lenox Col Sum. 1 Cornell Col. 4....	.....	.....

—FOUR YEAR COURSES.

Preparation.

E.
H.

High School Courses.

M. D

H. D

Ph. I

B. M

M. D

M. D

B. D

M. B

.....

Ph. I

A. B

Ph. I

B. P

B. P

M. A

B. A

.....

B. D

Ph. I

.....

B. B

Ph. I

A. B

B. A

B. A

Ph. I

B. A

B. A

B. B

.....

B. A

HIGH SCHOOL STATISTICS

High School.	Name of instructors.	Number of period.	Preparation.		
			Years in College or university.	Years in a State Normal.	Years in other institutions above high school grade.
Renwick..	L. H. Achline.....	12	.....	I. S. N. S. 1 sum.	.....
	Lizzie A. Marsh.....	8	Gould Col., Harlan Kan. 1.....	Kan. S. N. S. 1½	.....
Riceville..	Paul M. Ray.....	6	.....	.....	W. Nor Col part of 2yrs Dubu. sum S.
	Cora I. Reid.....	8	Drake S. ....	.....	.....
	Edith Ketchum.....	4	.....	.....	Epworth Sem. 4..
Rockford..	S. R. Fitz.....	6	Iowa State Col. 4	.....	.....
	L. C. McMahon.....	6	Chi. Univ. ⅓ ... Col. Springs 3 ..	I. S. N. S. ¾	.....
	Edith Waller.....	6	Simpson 1.....	.....	.....
	Arthur Brogue.....	1	Cornell 2.....	I. S. N. S. ½	.....
	Mrs. Janette English.....	.....	.....	I. S. N. S.....	.....
Rock Rapids..	W. S. Wilson.....	2	.....	N. W. State Nor. Sch. (Pa.) 4 ....	.....
	Helen M. Wolf.....	5	Wis. Univ. 1	I. S. N. S. 1.....	Cortland N. Y. 1. Platteville Wis 1
	Florence Graham.....	1	.....	I. S. N. S. 2.....	.....
	Myrtle E. Anders.....	4	.....	I. S. N. S. 4.....	.....
Rockwell..	Fred Mahannah.....	8	Cornell Col. 5. ....	.....	.....
	Susan Elizabeth Baur.....	.....	.....	I. S. N. S. 2.....	.....
Rockwell City.	L. O. Bryan.....	2	.....	I. S. N. S. 2¾...	Epworth Sem. 1..
	C. H. Anthony.....	5	S. U. I. 4.....	.....	.....
	Belle Tennant.....	4	Cornell Col. 3.....	.....	.....
	Georgia a Holloway.....	1	Iowa Col. a.....	.....	.....
	Ida McQuie.....	2	.....	.....	Highland P. Col. 2
Rock Valley..	B. T. Youel.....	4	.....	I. S. N. S. 8.....	S. U. I. 1 Sum...
	Gertrude Huizenga.....	7	Lake Forest (Ferry Hall) 1.	.....	North West Classical Academy 8 (Orange City Ia)
	Inez McLean.....	7	Amity College 1½ Molmouth Col 1	Kirkville (Mo.) 1	.....
Relfe ...	F. L. Cassidy.....	4	Upper Iowa U. 4.	.....	.....
	Emma Larkin.....	1	.....	I. S. N. S. 4.....	.....
	Irma Evans.....	8	Cornell Col 4.....	.....	.....
Russell...	S. W. Rowley.....	9	.....	.....	.....
	Hattie Worley.....	9	Neb. Wes. 4.....	.....	Nor. Dep t. Nebr. Wes. 2.....

—FOUR YEAR COURSES.

1
1
1
.
1
.
.
A
A
.
.

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years college or un versity.	Years in a State Normal.	Years in other institutions above high school grade.
Ruthven ..	H. A. Welty	9	Carthage Col 1 ..	I. S. N. S. 8	
	Blanche McCattermole.....	9	Upper Ia. Uni. 4		
	Harry P. Helms	10			Spirit Lake Nor. 8
Sabula	L. V. Beaulieu	4	S. U. I. 5		
	Bessie Ellison.....	6	Simpson Col. 4.		
	Bertha S. Wolf.....	6	S. U. I. 4		
Sac City..	O. F. Garrett.....	6	Neb. State Uni. 4		
			Cornell Uni. 2..		
	E. C. Kettelkamp	2	Gen. Wesleyan U. 4		
	Augusta Connolley.....	7	Ohio State Uni. 4.		
	Mary E. Paul	6	Coe. Col. 4		
St. Ansgar	Grace Bidlack.....	2	Drake 2.		
St. Ansgar	F. H. Sunderlin	6	Ellsworth Col. 1.		Nora Spgs. Sem. 8
	Florence L. Johnson	8		I. S. N. S. ½	
Salem .. .					
	R. R. Richmond	9		Kan. State Nor. 1	Stockton Acad. 1
	Amy Bliss		Whittier .. .		Salina Nor. U. 1
Sanborn ..	J. E. Johnson.....	4	S. U. I. 2	I. S. N. S. 3	
	Sarah M. Whitfield.....	7		I. S. N. S. 8	
	Hannah L. Houghton	7	S. U. I. 2	I. S. N. S. 2	
	Cordelia S. Treat.....	3		I. S. N. S. 2	
Schaller ..					
	F. E. Ford	7		I. S. N. S. 4	
	Bertha E. Alexander.....		Monmouth C. 1½,		
			State U. Ind. 1,		
Sergeant Bluff			S. U. I. 2		
	B. H. Callison.....	7		I. S. N. S. 3	S. U. I. Sem. Sec.
	Clara E. Johnson.....	3			
Seymour..					
	J. R. Congill.....	5	N. W. Uni. 1		
	J. S. Stamps.....	8	Amity Col. 2		N. W. Uni. ½
	Maude Pettit.....	4		I. S. N. S. 2	H. P. Col. 1.....
Shelby					
	Louis Pelzer.....	5	S. U. I. 1½	I. S. N. S. 8	
	Mary E. Tate.....	6	Iowa Col. 4		
	Ariel Pariah.....	7		I. S. N. S. 4	

—FOUR YEAR COURSES.

Preparation.**Eng.****High School Courses.**

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Sheldon ..	O. M. Elliott.....	1	Marietta Ohio C. 4		
			S. U. I. Sum 1.		
	Elizabeth M. Gill.....	4	Cornell 2.....		
	Lillian O. McColn.....	2	Cornell 3.....		
	Jessie Maude Lickle.....	6	Cornell 4.....		
	Augusta E. Hitchcock.....	6	Uni. Chicago 1		
Shell Rock			Lombard Col. 3	I. S. N. S. 1½.....	
	A. R. Nichols.....,	5	Upper Iowa 4.	I. S. N. S. Sum. 1	
	A. W. Moore.....	5		I. S. N. S.	
	Erie Collins.....	6		I. S. N. S.	
	Maye Loomis.....	7		I. S. N. S.	
Shenan- doah	Carrie E. Huting.....	6	Iowa Col. 5.....		
	Zelma Goldsworthy.....	4	Iowa Col. 4.....		U. of Minn. 5 mo. (Grad. Work) ..
	A. Claire Goodsill.....	5	Knox Col. 4.....		
	Jennie Taylor.....	5			West. Nor. Col. 2
	Frank M. Stettler... ..	4	Dury Col. (Spring field, Mo.) 4.....		U. of Chi. (Post Grad. Work)...
Sibley.....	L. B. Parsons.....	4	Upper Iowa U. 1, Cornell Col. 3..		U. of Chi. ½.....
	Deca Lodwick	7	S. U. I. 3.....	I. S. N. S. 1½.....	
	Olara Kink	8	Carleton Col. 4...		Charles City Col ½
Sidney	Chas. S. Cobb	4		I. S. N. S. 3.....	Sum. at Drake and Lincoln ...
	Della Simons.....	6	U. of Neb. (Lin- coln) 2½.....		
	Jennie Stiles.....	6	Tabor Col. 2		Sum. at Drake and Lincoln
	Lillian Eaton	6	Iowa Col. 3½.....		Simpson Col. 1..
Sigourney	H. F. Trumbo.....	5		I. S. N. S. 3.....	
	Ida Perry.....	6	U. of Mich. 3½.,		
	Lida Updegraff.....	6	Iowa Col. 1....		
			Cornell Col. 3....		
	Grace Hankens.....				
	Laura Carrell.....				
Sioux Cen- ter.....					
	E. J. Strick.....	5	Hope Col. 4.....		U. of Mich. 6 wks
	Miss W. Vander Linden...	8	Central U. (Ia) 4.		
	J. DeKoster (½ time).....	8			

—FOUR YEAR COURSES.

1

HIGH SCHOOL STATISTICS

High school.	Names of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Sioux City	George E. Marshall.....	..	Columbia .....	.....	.....
	Elizabeth Bills.....	..	Cornell .....	.....	.....
	A. R. Thomas.....	..	U. of Chicago.....	.....	.....
	Bertha W. Blum.....	..	S. U. I.....	.....	.....
	Fanny Burling.....	..	U. of Chicago.....	.....	.....
	Marion I. Durand.....	..	U. of Mich.....	.....	.....
	Blanch E. Lewis.....	..	U. of Chicago.....	.....	.....
	George W. Tidd.....	..	Stienman Col. ....	.....	.....
	Florence A. Shaw.....	..	U. of Wis.....	.....	.....
	Helen W. Syverson .....	..	U. of S. Dak.....	.....	.....
	Mrs. H. K. Del Foose.....	..	Rockhill Sem.....	.....	.....
	A. Marie Lynch.....	..	S. U. I.....	.....	.....
	Maud McMaster.....	..	Cornell Col.....	.....	.....
	Paul Dorweiler.....	..	S. U. I.....	.....	.....
	A. H. Smith.....	..	Dickinson Col.....	.....	.....
	P. A. Bond.....	..	S. U. I.....	.....	.....
	H. W. White.....	..	Simpson.....	.....	.....
	E. W. Freeland.....	..	Baker Uni.....	.....	.....
	H. W. Storla.....	..	Buena Vista Col.....	.....	.....
	Adah G. Grandy.....	..	U. of Wis.....	.....	.....
Sioux Falls	W. J. Hunt.....	..	.....	I. S. N. S. 4.....	.....
	Agnes Mosher.....	..	Amer 5.....	.....	.....
	Blanche Roberts.....	..	.....	Kansas Nor. 5...	.....
Sloan.....	O. E. Moffitt.....	4	S. U. I 4.....	.....	.....
	Alvena Hansen.....	..	Mich Univ. Chl. Univ l.....	I. S. N. S 2.....	.....
	Emily Aston.....	6	Coe Col. 4.....	.....	.....
	D. U. Hall.....	5	.....	.....	Morningside College 3½.....
Spencer..	A. H. Avery	1	.....	.....	.....
	D. M. Odle.....	4	Bridgeville Col 6..	.....	.....
	Lodina A. Willis.....	5	U. of Wis. 1.....	St Nor Plattville (Ore) 4.....	St. Univ. Colo....
	O. C. Williard.....	6	Drake 5.....	.....	.....
	Ina L. Hill .....	..	S. U. I. Iowa Col 4.....	.....	.....
	R. L. Collett.....	..	Iowa State Col 4..	.....	.....
Spirit Lake	T. Frank Pearson.....	7	Parsons Col. 8.....	.....	Wash. Acad. 8...
	Ada El'en Clark.....	5	Coe Col. 4.....	.....	.....
	Edythe A. Acheson.....	6	.....	I. S. N. S (terms 1)	.....
Springville.....	F. N. Nisley.....	7	Coe Col 5.....	.....	.....
	Eunice Eyestone.....	6	Iowa Wesleyan 8.	.....	.....
	.....	.....	Cornell 1. ....	.....	.....
Stanwood.	Paul S. Filer.....	5	S. U. I. 5 .....	.....	.....
	Mrs. M. Scherrebeck.....	7	.....	I. S. N. S. 2.....	N. Y. Acad. 2....

—FOUR YEAR COURSES.

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Préparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Storm-Lake	A. O. Fuller, Supt	2	S. U. I. 1 U. Chi 1	I. S. N. S. 4.....	Armour Inst. ½..
	Olara R. Bamber.....	5	Cornell Col. 2½..	.....	U. of Chi. 1.....
	Nellie A. Regan.....	7	Iowa Col. 4.....	.....	.....
	Julia H. Braginton..	7	Cornell Col. 1½..	I. S. N. S. 1.....	.....
	Thomas Teakle.....	6	.....	I. S. N. S.....	.....
	Lulu Stevens.....	8	Iowa Col. 1.....	.....	Prov. Acad 4 Chi. Central Conserva- tory 2..
Story City	E. E. Waters.....	7	.....	I. S. N. S.....	.....
	Maud Wakefield.....	8	Iowa State Col. 4..	.....	.....
Stuart	C. McCracken	1	S. U. I. 1.....	.....	Ind. Normal 8....
	A. M. Allison.....	4	Susquehanna U. 2	.....	.....
	M. Ella C. McNichols	6	Bucknell Uni. 2..	.....	.....
	Lina Haviland Moore	6	S. U. I. 2.....	I. S. N. S. 2.....	.....
	Wiltinima Van Syoc.....	7	Simpson Col. 4..	.....	Simpson Nor. 2.. Simpson S. of Or. 2
Sumner.	Thos. J. Durant	6	Upper Iowa U. 6.	.....	.....
	Gladys Kiefer.	6	.....	I. S. N. S 3.....	.....
Sutherland	F. E. Tellier	6	Iowa Col. 4.....	.....	.....
	.....	.....	S. U. I. 1.....	I. S. N. S. 1 Sum.	Uni. of Chi. 3 mo. Grad. Col...
	Edith C. Swan	6	Iowa Col. 4.....	.....	.....
	Nellie A. Chase.....	6	S. U. I. 4.....	.....	.....
Tipton	Ruby E. Parish.....	6	Iowa Col. 4.....	.....	.....
	C. Ray Aurner.....	2	S. U. I. 1.....	I. S. N. S. 4.....	U. of Chi. 1-6....
	Hallie Jennings.	7	.....	I. S. N. S. 5.....	.....
	Estia Ruth Parsons.....	7	Cornell Col. 2....	I. S. N. S. 1.....	S U. I. Sum. Ses.
	Ruth Pratt.....	6	Cornell Col. 4....	.....	.....
	Mrs. C. R. Aurner.....	4	S. U. I. 1. Drake 8	.....	.....
Toledo	Ethel F. Carpenter.	5	Cornell Col. 4....	.....	Cornell Nol. Dept.
	Walter S. Donat.....	6	Western Col. 4, Yale U. 1.....	.....	Western Col. Acad Upper Ia. Uni. 2..
	Emma Hancock.....	7	Ia. State Col. 3...	.....	N. W. Univ. 1....
	Mabel Smith.....	7	Western Col. 5..	.....	.....
Traer.....	F. L. Mahannah.....	5	S. U. I.....	.....	Nor. Ind. Nor. 4.
	Harry Lambert	7	.....	I. S. N. S.....	.....
	Clara Blonde.....	7	S. U. I.....	.....	Oizen Nor. 1....
Union	J. T. Fackler	7	Cornell Col. 3....	I. S. N. S. 3.....	.....
	Ada B. Zane	9	Iowa Col. 4.....	.....	.....

-FOUR YEAR COURSES.

Preparation.	Yr's experience in H.S.	High School Courses.											
		Branches studied.	Number weeks.	Rec. per week.	Rec. period.	Branches studied.	Number weeks.	Rec. per week.	Rec. period.				
M. Di.	7	Algebra.....	54	5	40	Physical Geog. .	18	5	40				
Ph. B.	18	Geometry.....	54	5	40	Physics.....	36	5	40	Com'l law.....	36	5	40
		Arithmetic.....	14	5	40	English.....	144	5	40	Com'l Arith.....	18	5	40
	5	General Hist.....	35	5	40	Political Econ....	18	5	40	Book-keeping..	18	5	40
M. Di.	4	U. S. History.....	18	5	40	Latin.....	144	5	40	German.....	72	5	40
		Civics.....	18	5	40								
	7												
B. Di.	8	Algebra.....	72	5	30	Physical Geog. .	18	5	35	Book-keeping...	18	5	45
B. Ph.	2	Geometry.....	36	5	30	Physics.....	24	5	40	Etymology.....	36	5	30
		Arithmetic.....	42	5	30	English.....	66	5	30	Orthography..	12	5	30
		General Hist.....	36	5	25	Physiology.....	12	5	30	Latin.....	72	5	20
		U. S. History..	36	5	30	Political Econ....	18	5	30				
		Civics.....	36	5	30	Botany.....	18	5	35				
B. A.	12	Algebra.....	54	5	35	Physical Geog. .	18	5	35	Latin.....	144	5	35
A. B.	4	Geometry.....	54	5	35	Physics.....	36	5	35				
		Arithmetic.....	18	5	35	English.....	126	5	35				
	8	Gen. Hist.....	36	5	35	Physiology.....	18	5	35	German.....	72	5	35
M. Di.	6	U. S. Hist.....	18	5	35	Botany.....	14	5	35	Bookkeeping...	18	5	35
Ph. B.		Civics.....	18	5	35	Chemistry.....	18	5	35	Com'l Geog....	18	5	35
B. S.	12	Algebra.....	54	5	45	Physical Geog. .	36	5	45	Word Analysis..	18	5	35
	1	Geometry.....	36	5	45	Physiol.....	36	5	45	Bookkeeping...	18	5	40
		Arithmetic.....	27	5	45	English.....	126	5	45	Astronomy.....	18	5	45
		Gen. Hist.....	36	5	40	Physiology.....	18	5	45	Com'l Geog....	18	5	45
		U. S. Hist.....	18	5	40	Political Econ....	20	5	45				
		Civics.....	18	5	40	Reviews—							
		Algebra.....	54	5	35	Physics.....	36	5	35	Bookkeeping	18	5	35
		Geometry.....	54	5	35	English.....	108	5	35	Latin.....	144	5	35
A. B., A. M.	7	Gen. Hist.....	36	5	35	Political Econ....	18	5	35	German.....	86	5	35
Ph. B.		U. S. Hist.....	18	5	35	Botany.....	18	5	35				
Ph. B.		Civics.....	18	5	35	Zoology.....	18	5	35				
Ph. B., M. T.	10	Algebra.....	54	5	35	Physical Geog. .	18	5	35	German.....	72	5	35
B. Di.	7	Geometry.....	54	5	35	Physics.....	36	5	35	Economics.....	18	5	35
	8	Arithmetic.....	14	5	35	English.....	62	5	35	Com'l. Law or			
A. B.		General Hist.....	36	5	35	Physiology.....	118	5	35	Book-keeping.....	18	5	35
Ph. S.	2	U. S. History.....	18	5	35	Latin.....	144	5	35	Roman History.....	18	5	35
		Civics.....	18	5	35					English History.	18	5	35
	10	Algebra.....	54	5	40	Physics.....	36	5	40	Latin.....	144	5	40
		Geometry.....	54	5	40	English.....	144	5	40				
B. A.	8	General Hist.....	36	5	40	Physiology.....	18	5	40	Arithmetic.....	36	5	40
B. So.	1	U. S. History.....	18	5	40	Botany.....	18	5	40	Political Econ....	18	5	40
Ph. B.	2	Civics.....	18	5	40	Higher Arith....	18	5	40	German.....	72	5	40
		Physical Geog	18	5	40				Reviews.....	18	5	40	
B. S.	9	Algebra.....	54	5	45	Physics.....	36	5	40				
M. Di.	1	Geometry.....	54	5	45	English.....	108	5	40	Book-keeping..	18	5	40
	8	Arithmetic.....	36	5	45	Physiology.....	18	5	40	Orthography..	18	5	40
		General Hist.....	36	5	40	Political Econ....	18	5	40	Botany.....	18	5	40
		U. S. History..	18	5	40	Latin.....	144	5	40	Com'l. Law....	16	5	40
		Civics.....	18	5	40	German.....	72	5	40	Com'l. Geog....	18	5	40
		Physical Geog.	18	5	40								
B. Ph., M. Di.	6	Algebra.....	54	5	45	Civics.....	18	5	40	Political Econ....	18	5	40
B. Ph.		Geometry.....	36	5	45	Physical Geog.....	18	5	40	Botany.....	18	5	45
		Arithmetic.....	18	5	40	Physics.....	36	5	40	Latin.....	144	5	40
		General Hist.....	36	5	45	English.....	108	5	40				
		U. S. History..	18	5	40	Physiology.....	18	5	40				

HIGH SCHOOL STATISTICS

High school.	Names of instructors.	Number of periods	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Valley Jct.	W. O. Reed		H. P. Col. 3	I. S. N. S. 1½ ..	
	Pearl Sheffield		Drake 4.		
	Edna Pugh		Drake 4.		
	Blanche Plukerton	7	Drake 4.		
Victor ...	A. S. Reid	9	Drake 5, Yale Univ. 2½	I. S. N. S. 1	
	Godfrey Messer			I. S. N. S. 2	
Villisca...	C. O. Ball	4	Coe Col. 4 ...		
	H. W. Hackett ..	6	Penn. Col. 2½ S. U. I. 2		
	Letha Jones	6	Cornell Col. 4 ...		
	Jessie Wiseman	6	Cornell Col. 3 ...		O. W. Univ. 1
	Leonora Wallace	5	Red River Valle Univ. 1		
Vinton....	A. M. M. Dornon	1	Geneva Col. 3½ S. U. I. 1 term		Blairville, Pa. A. 1, New Alexander Acad. 2.. I. S. Col. 1 term.. Cornell C. 2 term
	James Rae.	4	Simpson Col. 4...		
	Ethel Golden	5	S. U. I. 2½		
	Blanche McLaughlin.	8		I. S. N. S. 4 tr..	
	Mrs. Elizabeth Sherwood ..	6	S. U. I.		
	Mrs. Minnie Thompson	8		Minn. S. N. 1	
Wall Lake	M. R. Timmerman	6	Iowa State C. 1½.	I. S. N. S. 1½ ...	
	Mrs. Hattie Timmerman ..	7		I. S. N. S. 3	
	Mrs. Ada Shollenberger ..	8		I. S. N. S. 1	
Walnut ...	L. J. White.	5	Drake (Sum) 2, S. U. I. 2		Western Nor. 3..
	Ella Moore	6	Cornell C. I, S. U. I. 1	I. S. N. S. 2	
	Lucile Landers	7	S. U. I. 4		
	Della Meier	2	Oberlin 1		
Wapello ..	John W. McCulloch	4		I. S. N. S. 1	Valparaiso 3
	Phila G. Russell	6	I. U. U. 2		
	Kittie M. Grimes	6		I. S. N. S. 2	
	Izola M. Sweeney	2		I. S. N. S. 2	Valparaiso 3
Wash- ington..	J. A. Biggs, Prin.	3	Lake Forest U. 4		Lake Forest A. 1.
	Stena Hansen	5		I. S. N. S. 4	U. of Chi. ½
	Margaret Lafley	5	S. U. I. 4		
	Carolyn Rall	6	S. U. I. 2	I. S. N. S. 3	
	Ella Woodford	5	U. of Neb. ½, S. U. I. ½		U. of Chi. ½
	Ethel G. Nichols	5	S. U. I. 4		
	Mary W. Bryant	6	Iowa Col. 4		Harvard U. ½
	H. E. Case	6	U. of Wis. 2	Wis. State Nor. 8	

—FOUR YEAR COURSES.

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Waterloo (East)...	E. S. Hamm, Prin	8	Lake Forest U. 4.		Lake Forest A. 2.
	Mary McDuffie.....	4	.....	I. S. N. S. 2	.....
	Lillian E. Richert.....	4	.....	I. S. N. S. 3	.....
	Bessie E. Cottrell.....	5	U. of Wis. 4	.....	.....
	Mary Norton	5	Drake 2, S. U. I. 1	.....	U. of Chl. ½
	Florence L. Joy	5	S. U. I. 4	.....	.....
	Floy M. Bennett	5	.....	I. S. N. S. 2	.....
	Mae Belle Allstrand	5	S. U. I. 3	.....	.....
	Susan Hemmenway	5	.....	I. S. N. S. 3	.....
	Maude Foote.....	6	.....	I. S. N. S. 3	.....
	C. K. Warne	5	Upper I. U. 4	.....	.....
	Nellie N. Hoxie.....	4	N. W. U. 2	I. S. N. S. 2	Cornell (N. Y.) summer tr.....
	Newton Miller.....	5	U. of Ind. 5	.....	.....
	Nellie Ranyon	4	.....	I. S. N. S. 2½	T. O. Acad. (Vinton)
Waterloo (West) ..	Margaret Montgomery, Prin	8	Muskegan U. 2	I. S. N. S. 4	.....
	Carrie Mason.....	5	N. W. U. 4	.....	.....
	Evelyn Johnson	5	.....	.....	Ind. U. 1 term....
	Jennie Speer	5	.....	I. S. N. S. 4	.....
	Lillian E. Waits	6	S. U. I. 4	.....	.....
	Eleanor Hesofeld.....	5	S. U. I. 4	.....	.....
	Mrs. D. K. Bond	6	.....	I. S. N. S. 3	.....
Waukon ..	J. H Bowers Supt.	3	West Va. Univ. ..	Fairmont State ..	Ohio Wesleyan ...
	Lena Donaldson Prin.....	6	Upper Ia. Univ. 4	.....	.....
	Leah Ricker.....	5	.....	.....	Highland P. Col. 4
	Francis Caswell	3	Mich. Univ. ....	.....	.....
Waverly ..	W. F. Cramer	3	Cornell 5, Upper Ia. Univ. 4	.....	.....
	Bertha L. Glatly	6	Univ. Mich. 1	.....	.....
	Viola Knoche.....	6	.....	I. S. N. S. 3	.....
	Letta D. Horner.....	7	Drake 1, N. W. Univ. 1	I. S. N. S. 3	.....
	J. D. Robinson.....	7	Upper Ia. Univ. 4 Univ. Mich. 3	.....	.....
Webster City..	L. H. Ford	1	Univ. of Wooster Ohio 6	.....	.....
	Mrs. L. Elizabeth Wilson..	5	Univ. Wisconsin. Cal. S. School....	N. E. State Nor	Newbury Sem...
	Laura A. White.....	5	Univ Neb. 4	.....	.....
	F. B. Gainer	3	Monmouth Col. 4	.....	.....
	Beulah Crawford	5	Cornell Col. 4	.....	.....
	Gladys Whitley.....	5	S. U. I. 4	.....	.....
Wellman..	Abraham O. Thomas.....	7	S. U. I. 4	.....	.....
	Clara M. Vermillion.....	7	S. U. I. 1½	.....	.....

—FOUR YEAR COURSES. .

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
West Liberty..	E. F. Schall	2	Univ. of Mich 2..	.....	S. U. I. 4 Sum.
	Emma Henderson	5	U. of Chl. 4. ....	.....	Sessions
	Maude Smith	5	S. U. I. 4. ....	.....	Chautauque N. Y.
	Pearl VanTuyt	6	.....	I. S. N. S. 8.....	.....
	Edith W. Merritt.....	2	S. U. I. 6. ....	.....	.....
West Union...	James O. Sanders	4	Coe Col 2 S. U. I. 1	.....	.....
	Elizabeth Kaye	6	Western Col 1.	I. S. N. S 1 .....	.....
	Otto V. Wille	6	Upper Iowa Uni. 1	I. S. N. S 2 .....	.....
	Nelle B. Sebern.....	6	S. U. I. 4. ....	.....	.....
	Mr. Dykens.....	1	S. U. I. 4. ....	.....	.....
	Helen Crafts.....	2	.....	.....	.....
	Jessie Sherman.....	1	.....	.....	.....
What Cheer...	John E. Witmer	5	Iowa Col. 4. ....	.....	S. U. I. 1 term U.
	Effie Rolles	7	.....	I. S. N. S.....	of Chl. 2 term.
	Martha Meacham	4	S. U. I. 1	I. S. N. S 1.....	.....
Whiting ..	F. H. Stewart.....	7	.....	I. S. N. S. 3 .....	.....
	Alice Morgan	9	Bellevue Col. 8. ....	.....	.....
Williams..	E. E. Bovee	10	.....	Central State	.....
	Irene M. Campbell.....	10	Drake 8.	Nor. of Mich 4..	U. of Mich 1 Sum.
Williamsburg..	N. E. Johnson	4	.....	.....	.....
	Mrs. T. W. Tomasek.	6	S. U. I. 5. ....	.....	.....
	Signy Veblen.....	6	S. U. I. 5. ....	.....	.....
Wilton Jct	Will. A. Pye	5	Cornell Col. 4....	.....	.....
	Mary Buffan.....	7	S. U. I. 4. ....	.....	.....
	Ethel Conn.....	6	Drake 4. ....	.....	.....
Winfield ..	Francis G. Robb.....	5	Parsons Col. 4 ...	.....	Grad. Work U. of
	Martha Pattie.....	7	Beuna Vista Col. 2	.....	Wis. Sum. So. 1/2
	Ruth E. Erwin.....	4	S. U. I. 2 .....	.....	S. U. I. Sa. So. 1/2
Winterset.	L. D. Salisbury.....	2	Simpson Col. 2 1/2..	.....	Iowa State Col. 1
	Emory D. Bream.....	2	.....	Dip. in Sp'l Adv	.....
	Elizabeth Mayor	6	.....	Music I. S. N. S. 8	.....
	Ether L. Cooper.....	5	Pa. Col. 4. ....	.....	S. U. I. S. Sec. 6 w.
	Katharine Zeller.....	6	Barthage Col. 4..	.....	Car. O. Sa. N. Sec.
	Effie Turner.....	1	S. U. I. 4. ....	.....	.....
			Simpson Col. 4. ....	.....	.....
			.....	I. S. N. S. 2 Sum.	Drake Sum. Sec..

—FOUR YEAR COURSES.

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal	Years in other institutions above high school grade.
Woodbine.	H. A. Kinney	7	.....	.....	.....
	H. A. Reed	8	.....	.....	.....
	G. B. Rigg	8	S. U. I. 3 . . . . .	.....	Woodbine Nor. 3.
	F. J. Howe	9	Knox Col. 8. . . . .	.....	Armour Inst. 1. . .
	J. W. Bolender	8	Albion Col. 1½ . . .	St. Nor. Col. 1 Yp. Mich. . . . .	.....
	Mrs. W. H. Vining	2	Simpson Col. 3 . . .	.....	Woodbine Nor. 4.
Wyoming.	Albert W. Graham,	7	S. U. I. 1.	I. S. N. S. 3. . . . .	.....
	Mae A. Spidel	8	S. U. I. 5. . . . .	.....	.....
Zearing . . .	Austin Johnson	8	.....	I. S. N. S. 3 . . . . .	.....
	Blanche McIntosh	10	.....	I. S. N. S. 2 . . . . .	.....

—FOUR YEAR COURSES.

Preparation.		High School Courses.											
Degrees held.	Yr's experience in H. S.	Branches studied.			Branches studied.			Branches studied.			Branches studied.		
		Number weeks.	Rec. per week.	Rec. period.	Number weeks.	Rec. per week.	Rec. period.	Number weeks.	Rec. per week.	Rec. period.	Number weeks.	Rec. per week.	Rec. period.
.....	26	Algebra	60		Physical Geog.	2	5	4					
.....	20	Geometry	60		Physics	40	5	35	Latin	140	5	35	
B. S., B. D.	11	Arithmetic	40		English	16	5	35	Book-keeping	20	5	75	
M. Ed.	12	Gen. History	40		Physiology	2	5	35	Botany	20	5	35	
.....		U. S. History	30		Political Econ.	20	5	35	German	80	5	35	
.....	2	Civics	40						Chemistry	20	5	35	
.....	8												
B. Ed.	4	Algebra	60		Civics	21	5	35	Political Econ	18	5	40	
B. A.	1/2	Geometry	30		Physical Geog	21	5	35	Botany	10	5	35	
		Arithmetic	12		Physics	36	5	40	Hist.—Ancient	30	5	40	
		U. S. History	10		English	108	5	40	Book-keeping	18	5	35	
B. Ed.		Algebra	4		Physics	36	5	25	H. of Education	12	5	35	
B. Ed.	2	Geometry	30		English	0	5	25	H. of Eng. Lan	8	5	35	
		Arithmetic	16		Physiology	24	5	25	Book-keeping	20	5	30	
		Gen. History	3		Political Econ.	18	5	25	Spelling	144	2	35	
		U. S. History	20		Botany	8	5	35	Latin	80	5	35	
		Civics	28		Chemistry	28	5	30					
		Physical Geog	34		Psychology	12	5	35					

Note: The subjects in the preceding courses are arranged in groups, separated by blank lines. The first group is pursued by all pupils; the remaining groups are supplemental and determine the character of the course.

HIGH SCHOOL STATISTICS

High School	Name of instructors.	Number of period.	Preparation.		
			Years in College or university.	Years in a State Normal.	Years in other institutions above high school grade.
Ainsworth	R. S. Dix.....	.....	.....	I. S. N. S 4 .....	.....
Albion	F. H. Tigert	7 .....	.....	I. S. N. S. 3.....	.....
	Mrs. W. B. Mantle.....	8	Cornell Col 4.....	.....	.....
Allison	J. P. Street.....	8 .....	.....	.....	Decorah Inst 2....
Anthon ...	Paul J. Scarbro. ..	8 .....	.....	I. S. N. S 1.....	Highland Park 2.
	Nellie Ray.....	9 .....	.....	I. S. N. S 1.....	Morningside Col 1
Aplington	A. C. Voelker	12 .....	.....	Con'tl State Nor. Mt Pleasant Mch 8	.....
Arcadia. ...	Ernest Walker.....	12 .....	.....	I. S. N. S 3. ....	.....
Aurelia ..	Chas. D. Curtis.....	6	Hillsdale Col. 2 (Mch), DrakeU.3	.....	.....
	Lottie Farr.....	6 .....	.....	I. S. N. S. 8.....	.....
Bagley	Elmer E. Franklin.....	12 .....	.....	I. S. N. S. 3.....	West Nor. Col. 1 (Shenandoah)...
Baldwin ..	D. S. Welch.....	13 .....	.....	.....	.....
Bancroft..	Sid J. Backus.....	6	Drake (Sum) 5.....	.....	Tobin 1.
	Mary L Sutton.	8	Cornell.....	I. S. N. S. 1.....	.....
	Mary Ring.....	2 .....	.....	.....	.....

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Batavia ..	Anna Rowland.....	13	O. C. Col. 3 I. S. Col. 1.....		St. Kathryn's 3..
Baxter....	E. A. Crawford.....	11	Western Col. 1 I. S. Col. 8½.....	I. S. N. S. ½.....	
Bayard....	L. M. Boggs.....	6			Caldwell Nor. 8 (Ohio).....
	John Corregan.....	2			
Bellevue ..	B. S. Asquith.....	8		I. S. N. S. 4	
	E. O. Knox.....	7	Coe Col. 4.....		
	A. K. Bovard.....	4			
Blanchard.	Aletha Montgomery.....	6		I. S. N. S. 1.....	Washington A. 4.
	Ethel J. Purinton.....			Neb. State Nor. 4 (Peru)	
Boyden ...	H. P. Mowrer				Western Normal.
Bristow...	W. W. Crawford.....	1	Iowa State 1½.....	I. S. N. S. 2.....	
Cam- bridge..	W. H. Davis	11		I. S. N. S. 3.....	
	W. W. Ballard..... (One class in 9th grade.)	4			
Carlisle ...	W. M. McGee.....	12			
Casey.....	J. O. Huntley	7		I. S. N. S. 4	
	Bessie Johnson.....	7	Iowa Col 4.....		
Castana...	W. E. Atkinson.....	8	S. U. I. 2.....		
	Harry Biddinger.....	6		Rochester Ind. 2.	Vorhies Bus. Col. Indianapolis 1.....
	Selina Pendleton Wilson...	6		Woman's Col Bal- timore 4.....	
Chelsea....	H. M. Tiffany	12			Palmer Col 1 term

—THREE YEAR COURSES.

Preparation.		Yr's experience in H.S.	High School Courses.								
Degrees held.			Branches studied.	Number weeks.	Rec. per week.	Rec. period.	Branches studied.	Number weeks.	Rec. per week.	Rec. period.	
A. B	2	Algebra	48	5		1	5	Political Econ..	16	5	30
		Geometry	32	5		2	5	Botany	16	5	30
		Arithmetic	32	5		3	5	Latin	64	5	30
		Gen. History	32	5		4	5				
		U. S. History	32	5		5	5				
	6	Algebra	51	5		16	5	Ancient Hist..	16	5	35
		Geometry	36	5		22	5	Latin	72	5	35
		Arithmetic	18	5		4	5				
		Civics	36	5		8	5				
	17	Algebra	72	5		9	5	English	90	5	40
		Geometry	36	5		3	5	Physiology	18	5	40
		Arithmetic	18	5		4	5	Political Econ..	18	5	40
M. D. A. B.	4	Algebra	40	5		16	5	Botany	18	5	35
		Geom.—Plane	36	5		22	5	Latin—Beginn'g	18	5	35
		Gen. History	36	5		2	5	Cesar	36	5	35
		Civics of U. S.	18	5		2	5	Virgil	36	5	35
		Algebra	72	5		16	5	English Lit. ..	108	5	40
		Geometry	36	5		14	5	Political Econ..	18	5	40
		Arithmetic	36	5		16	5				
		General Hist.	36	5							
		Algebra	60	5		16	5	Book-keeping..	18	5	35
		Geometry	36	5		17	5	Music	36	5	35
		Arithmetic	36	5		4	5	Latin	36	5	35
		General Hist.	36	5		9	5				
B. D.	2	Algebra	48	5		16	5	Political Econ..	18	5	30
		Geometry	36	5		4	5	Botany	18	5	30
		Arithmetic	36	5		10	5	Book-keeping ..	18	5	30
		General Hist.	36	5		1	5				
		U. S. History	18	5		3	5				
	4	Algebra	60	5		6	5	Physiology	18	5	35
		Geometry	36	5		14	5	Political Econ..	18	5	35
		Arithmetic	18	5		8	5	Botany	18	5	35
		General Hist.	36	5		12	5	Latin	36	5	35
		Algebra	61	5		16	5	Physiology	18	5	30
		Geometry	36	5		3	5	Political Econ..	18	5	30
		General Hist. ..	39	5		18	5	Botany	18	5	30
M. D.	4	Algebra	51	5		6	5	English	108	5	35
		Geometry	36	5		9	5	Political Econ..	20	5	40
		Arithmetic	36	5		10	5				
		Gen. History	36	5		16	5				
	20	Algebra	61	5		39	5	Chemistry	36	5	70
		Geometry	50	5		14	5	Book-keeping..	18	5	..
		Gen. History	36	5		18	5				
		Civics	24	5				Diadectics	18	5	35
	8	Algebra	64	5		33	5	English	108	5	35
		Geometry	40	5		17	5	Political Econ..	9	5	35
		Arithmetic	36	5		17	5				
		Gen. History	36	5		36	5				

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in state Normal	Years in other institutions above high school grade.
Churdan..	J. T. Bradshaw	8	.....	.....	Toronto Normal Ontario, Can. 1.. Collegiate Inst. 4
	Fern Williams.....		Tabor College 4 S. U. I. 1.....	.....
Cincinnati	P. B. Woods....	8	.....	.....	Valpariso Col. 4 (Ind.)..... S. E. Iowa Nor. 2
	W. E. Moore.....	8	.....	.....
Clarence..	M. E. Fayram .....		.....	I. S. N. S. ....	.....
	Ida Fell.....		.....	I. S. N. S.	
Clearmont	F. E. Heckel.....	12	Upper Ia. Univ. 5 U. of Chi. 2½.....	.....	Harde Bas. Col.¾
Coin.....	A. E. Woodrow.....	8	Drake 1. ....	.....	High. Park Col. 2 O. O. O. O. 8 mo..
	Jennie Wilson.	9	.....	I. S. N. S. 2.	
Collins	C. Clarence Baker.....	10	West'n Md. Col. 5. ....	.....	.....
Columbus City..	H. H. Winder.....	12	.....	I. S. N. S. 6 wks.	.....
	Lillian Van Horn.....	19	Drake 1 S U. I. 6 w.	I. S. N. S. 6 wks.	
Conway...	W. W. Palmer.....	13	.....	.....	Valpar. No. (Ind.)
	Ada Harvey.....	1	.....	.....
Craw- fordsville	George W. Weber.....	12	.....	I. S. N. S. 3 .....	.....
Cumber- land..	G. M. Grimes.....	11	.....	I. S. N. S. 3 .....	.....
Cushing..	Nettie Wells.....		.....	.....	Lincoln Nor. C. 2 (Lincoln, Neb.)
	D. E. Gemmell .....		.....	.....
Danbury ..	H. S. Stein.....	12	S. U. I. 1	I. S. N. S. 4	Denmark Acad. 2.

—THREE YEAR COURSES.

Preparation.		High School Courses.							
Degrees held.	Yr's experience in H. S.	Branches studied.	Number weeks.	Rec. per week.	Rec. period.	Branches studied.	Number weeks.	Rec. per week.	Rec. period.
		Algebra	72	5		Geog. .			
		Geometry	56	5					
	15	Arithmetic ..	56	5					
		Gen. History..	56	5					
A. B.									
		Algebra	54	5		tory...			
	21	Geometry ..	54	5					
A. M.		Arithmetic ..	54	5		Geog. .			
		Gen. History ..	54	5					
M. D.	6	Algebra	48	5					
		Geometry	36	5		Econ. .			
		General Hist..	36	5					
		Civics	18	5		rith. .			
		Physica.	36	5		alysis..			
Ph. S.	1½	Algebra	44	5					
		Geometry	32	5		Geog. .			
		Arithmetic ..	56	5					
		General Hist..	36	5					
		U. S. History..	36	5		ry			
B. D.	5	Algebra	54	5		Geog. .			
B. D.	4	Geometry	56	5					
		Arithmetic. .	4	5					
		General Hist..	36	5		ry			
		U. S. History							
		and Civics..	36	5		Econ. .			
A. B.	2	Algebra	72	4					
		Geometry ..	56	4		Geog. .			
		Arithmetic. .	56	4					
		U. S. History..	36	4					
		Algebra	48	5		tory...			
	1	Arithmetic. .	48	5					
		Gen. History..	36	4		Geog. .			
	12	Algebra ..	48	5					
		Arithmetic. .	56	5		Geog. .			
		Gen. History..	48	5					
		U. S. History..	36	5					
		Algebra ..	36	5		tory...			
M. D.	1	Geometry ..	24	5					
		Arithmetic. .	72	5		Geog. .			
		Gen. History..	24	5					
		Algebra	56	5		Geog. .			
B. D.	2	Geometry	36	5					
		Arithmetic. .	18	5					
		Gen. History..	36	5		Econ. .			
		Civics.	36	5					
		Algebra ..	54	5					
		Arithmetic. .	18	5		Geog. .			
A. B.		Gen. History..	36	5					
B. D.	3	Algebra	52	5					
		Geometry ..	60	5		Geog. .			
		Arithmetic. .	52	5					
		Gen. History	36	5					
		U. S. History..	36	5		ry			

HIGH SCHOOL STATISTICS-

High school.	Names of instructors.	Number of periods.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Davis City	J. W. Long	10	.....	.....	West'rn Nor. Col. H. Park Col....
Dayton ...	Chas. E. Kroesen	7	.....	I. S. N. S. 8 .....	.....
	Mae B. Kimple	8	S. U. I. 4 .....	.....	.....
Dedham ..	Josephine I. Bruce	18	.....	I. S. N. S. sum. t'm	Shenandoah
Deep River ...	M. F. Morgan	12	Drake .....	.....	.....
Defiance ..	Jas. H. Seymour	10	Drake 1	I. S. N. S. 2	Woodbine Nor. ½
Delmar ...	W. E. Rorabough .....	.....	.....	I. S. N. S 3 .....	.....
De Soto...	B. M. Cobb	12	.....	I. S. N. S .....	.....
Dewitt....	Margaret Buchanan	8	.....	.....	.....
	Della Reilley	9	.....	.....	U. of Chi. 1 term.
Diagonal..	L. M. Burgess .....	.....	.....	I. S. N. S 2	Iowa Bus. Col ½..
Deon.....	Fred A. Beyl	11	Franklin Col. 1..	.....	BredenNormal8½
	Lydia Hope	10	Ind. U of Chi. 8½	.....
Duncombe	I. O. Lovejoy	16	Coe Col. 1	I. S. N. S. 1	Humbolt Col. ½..
Earlville ..	Guy Ribble	12	.....	I. S. N. S. 8	Western Col. ½..
Elgin.....	J. H. Williams .....	.....	Grove Cy. Col. 2.	Slippery Rock Normal. 8..	.....

—THREE YEAR COURSES.

Preparation.		High School Courses.											
Degrees held.	Yr's experience in H.S.	Branches studied.	Number weeks.	Hrs. per week.	Sec. period.	Branches studied.	Number weeks.	Hrs. per week.	Sec. period.	Branches studied.	Number weeks.	Hrs. per week.	Sec. period.
.....	4	Algebra	15	4	.....	.....	32	5	30	.....	32	5	30
.....	4	Geometry	15	4	.....	.....	32	5	30	.....	32	5	30
.....	4	Arithmetic	15	4	.....	.....	32	5	30	.....	32	5	30
B. D.	.....	Algebra	15	5	.....	.....	72	5	30	.....	72	5	30
B. A.	.....	Geometry	15	5	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	Arithmetic	15	5	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	6	Algebra	15	5	.....	.....	34	5	30	.....	34	5	30
.....	6	Arithmetic	15	5	.....	.....	34	5	30	.....	34	5	30
.....	6	General Hist. ..	15	5	.....	.....	34	5	30	.....	34	5	30
B. D.	.....	Algebra	15	5	.....	.....	18	5	35	.....	18	5	35
.....	.....	Geometry	15	5	.....	.....	18	5	35	.....	18	5	35
.....	.....	Arithmetic	15	5	.....	.....	12	5	30	.....	12	5	30
.....	.....	General Hist. ..	15	5	.....	.....	72	5	35	.....	72	5	35
.....	.....	U. S. History ..	15	5	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	2½	Algebra	10	5	.....	.....	20	5	35	.....	20	5	35
.....	2½	Arithmetic	10	5	.....	.....	16	5	30	.....	16	5	30
.....	2½	General Hist. ..	10	5	.....	.....	16	5	40	.....	16	5	40
.....	2½	U. S. History ..	10	5	.....	.....	.....	.....	.....	.....	.....	.....	.....
B. D.	5	Algebra	15	5	.....	.....	16	5	40	.....	16	5	40
.....	5	Geometry	15	5	.....	.....	16	5	40	.....	16	5	40
.....	5	General Hist. ..	15	5	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	5	U. S. History ..	15	5	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	5	Physical Geog. ..	15	5	.....	.....	.....	.....	.....	.....	.....	.....	.....
B. D.	5	Algebra	15	5	.....	.....	17	5	35	.....	17	5	35
.....	5	Geometry	15	5	.....	.....	18	5	35	.....	18	5	35
.....	5	Arithmetic	15	5	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	5	General Hist. ..	15	5	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	5	U. S. History ..	15	5	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	5	Civics	15	5	.....	.....	.....	.....	.....	.....	.....	.....	.....
A. B., B. D., B. S.	.....	Algebra	15	5	.....	.....	15	5	30	.....	15	5	30
.....	.....	Geometry	15	5	.....	.....	15	5	30	.....	15	5	30
.....	.....	Arithmetic	15	5	.....	.....	36	5	30	.....	36	5	30
.....	.....	General Hist. ..	15	5	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	U. S. Hist	15	5	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	4	Algebra	14	5	.....	.....	18	5	25	.....	18	5	25
.....	4	Arithmetic	14	5	.....	.....	18	5	40	.....	18	5	40
.....	4	U. S. History ..	14	5	.....	.....	18	5	40	.....	18	5	40
.....	4	Civics	14	5	.....	.....	36	5	30	.....	36	5	30
B. D.	1	Algebra	6	5	.....	.....	36	5	30	.....	36	5	30
.....	1	Geometry	6	5	.....	.....	36	5	30	.....	36	5	30
.....	1	Arithmetic	6	5	.....	.....	18	5	40	.....	18	5	40
.....	1	General Hist. ..	6	5	.....	.....	.....	.....	.....	.....	.....	.....	.....
B. S., M. E.	4	Algebra	1	5	.....	.....	180	5	35	.....	180	5	35
.....	4	Geometry	1	5	.....	.....	36	5	25	.....	36	5	25
.....	4	Arithmetic	1	5	.....	.....	36	5	30	.....	36	5	30
.....	4	General Hist. ..	1	5	.....	.....	36	5	30	.....	36	5	30

HIGH SCHOOL STATISTICS

High school.	Names of instructors	Number of periods	Preparation.		
			Year in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Elkport....	Frank R. Johnson.....	20	.....	.....	High. Park Col. 8
Elliott. ..	B. F. Westcoat.	6	.....	.....	West. Nor. Col. 8
	Nellie M. Scott.	6	.....	I. S. N. S. 2½ ..	High Park Col. ½
Ellston	T. D. Kirkpatrick.....	10	Simpson ¾ .....	.....	.....
Essex	M. N. White.....	6	Simpson Col. 4. ...	.....	Dexter Nor. Col. 1
	Sadie Seablom.....	7	Neb. Univ 1.	I. S. N. S. 2½ ...	Simpson Acad. 2 S U. I. Sum. Work West. Nor. Col. 1
Everly	F. B. Steece.....	9	Dixon Ill. Col. 1..	I. S. N. S. 1½.....	Blairstowa Sem ¾ Tilford Acad. ½..
Fairbank..	A. R. McQueen.....	..	Iowa Col. 1	I. S. N. S. 6 mo..	Dixon, Ill. 1
Farragut..	C. P. Beale	8	Loneboard Col. 5 (Galesburg Ill.).	.....	.....
Fremont...	Charles Young.....	7	S. U. I. 2 Sum. T.	I. S. N. S. 3 terms	Abington Nor. 2
	Lida Taylor.....	8	Drake 2.....	.....	(Ill.).....
Garrison. .	E. R. Hutchinson.....	10	S. U. I. 3.....	.....	.....
Garwin ...	E. M. Wilcox.....	..	.....	I. S. N. S. 2 .....	.....
Gilman ...	D. A. Tisdale.....	6	.....	I. S. N. S 2.....	.....
	L. C. Knupp	12	S. U. I. 2 .....	.....	.....

—THREE YEAR COURSES.

Preparation.		High School Courses.								
Degrees held.	Yrs experience in H. S.	Branches studied.	Number weeks	Sec per week	Sec. period.	Branches studied.	Number weeks.	Sec per week.	Sec. period.	
B. D.		Algebra	7							
		Geometry or Literature.	8							
		Arithmetic. .	7							
		General Hist. .	8							
B. D., B.S.	6	Algebra	8				72	5	45	
B. D.	4	Geometry.....	8				12	5	45	
		Arithmetic....	8							
		General Hist. .	8							
		Algebra.....	8				12	5	45	
		Geometry.....	8				80	5	45	
		Arithmetic....	8				80	5	45	
		General Hist. .	4							
		U. S. History..	2							
		Algebra.....	5				85	5	40	
B. S.	8	Geometry.....	8							
B. M.	10	Arithmetic....	10				18	5	40	
		General Hist. .	8				18	5	40	
		U. S. History..	10							
		English.....	10				77	5	40	
		Political Econ..	10							
	10	Algebra.....	8				72	5	25	
		Geometry.....	8				5	5	30	
		Arithmetic....	10				16	5	30	
		Gen. History..	5							
		U. S. History..	10							
		Algebra.....	24				24	5	20	
		Geometry.....	24				18	5	20	
		Arithmetic....	24				24	5	20	
		Gen. History..	24				12	5	20	
		U. S. History..	24							
M. S.	10	Algebra.....	54				15	5	30	
		Geometry.....	72				18	4	30	
		Arithmetic....	72				104	5	30	
		Gen. History..	72							
		U. S. History..	24							
	5	Algebra.....	48				28	4	40	
		Geometry.....	24				18	5	40	
	2	Arithmetic....	16				16	5	40	
		Gen. History..	24				64	5	40	
Ph. B.		Algebra.....	24				104	5	40	
		Geometry.....	24							
		Arithmetic....	24				18	5	30	
		Gen. History..	24				16	5	30	
		U. S. History..	12							
		Civics.....	12							
B. Di.	1	Algebra.....	48				60	5	35	
		Geometry.....	24				105	5	35	
		Arithmetic....	24							
		Gen. History..	8							
	6	Algebra.....	54				12	5	35	
B. S.	2	Arithmetic....	30				10	5	25	
		General Hist. .	30							
		U. S. History..	18							

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number rec. period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Graetinger	F. H. Dawson.....	16	Upper Iowa U. 2	I. S. N. S. 8.....	.....
Gray.....	A. J. Albin.....	9	Drake 2 Sum T.....	.....	Western N. 1 Sum
Greeley...	Hugh A. Curran.....	12	Upper Iowa U. 4	.....	.....
Hastings...	A. E. Tipple.....	12	Tabor 2.....	.....	.....
Havelock.	Thos. Dunn.....	13	Drake 1.....	.....	.....
Hawkeye..	Elford O. Preston.....	12	Western Col. 3/4 Upper Ia. Uni. 3/4	.....	.....
Henderson	R. E. Davenport.....	4	.....	.....	West. Nor. Col. 2
Hopkinton	E. T. Bean.....	9	.....	I. S. N. S. 8.....	.....
Hornick...	W. H. Shipley.....	14	U. of Wis. (1 yr.)	St. Normal Sch. Whitewater, Wis.	.....
Ireton.....	Roy F. Hannum..... Anna E. Goodall.....	6	S. U. I. 3.....	.....	Morningside 4.....
Irwin.....	Carl S. Missildine.....	13	.....	I. S. N. S. 8.....	.....
Jolley.....	Arnold W. Lauer ..	16	S. U. I. 4.....	.....	.....

—THREE YEAR COURSES.

Preparation.		High School Courses.		
Degrees held.	Yr's experience in H. S.	Branches studied.	Number weeks.	Per cent.
B. D.	3	Algebra.....	40	1
		Geometry.....	34	1
		Arithmetic.....	14	1
		General Hist.....	30	1
		Algebra.....	72	1
		Geom.....	72	1
		General Hist.....	30	1
A. B.	1	Algebra.....	54	1
		Geometry.....	36	1
		Arithmetic.....	18	1
		General Hist.....	30	1
	22	Algebra.....	52	1
		Geometry.....	54	1
		Arithmetic.....	12	1
		Gen. History.....	30	1
		Algebra.....	72	1
		Geometry.....	34	1
		Arithmetic.....	72	1
		Gen. History.....	30	1
B. S.	2	Algebra.....	52	1
		Geometry.....	36	1
		Arithmetic.....	30	1
		Gen. History.....	30	1
		U. S. History.....	18	1
		Civics.....	20	1
B. S.	4	Algebra.....	52	1
		Geometry.....	36	1
		Arithmetic.....	20	1
		Gen. History.....	30	1
		U. S. History.....	18	1
		Civics.....	20	1
M. D.	1	Algebra.....	56	1
		Geometry.....	36	1
		Arithmetic.....	30	1
	2	Algebra.....	48	1
		Geometry.....	36	1
		Arithmetic.....	24	1
		Gen. History.....	30	1
		U. S. History.....	24	1
Ph. B.	1/2	Algebra.....	54	1
		Geometry.....	36	1
		Arithmetic.....	18	1
B. D.	1	Algebra.....	54	1
		Geometry.....	36	1
		Arithmetic.....	18	1
		General Hist.....	30	1
		U. S. History.....	18	1
Ph. B.		Algebra.....	30	1
		Geometry.....	36	1
		Arithmetic.....	30	1
		General Hist.....	30	1

HIGH SCHOOL STATISTICS

High school.	Name of instructor.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Kalona...	O. C. Morrison.....	11	Denver U. 2.....	I. S. N. S. 1.....	.....
Keswick ..	Fred Deming.....	9	Drake 8.....	.....	.....
Ladora....	Walter S. Mason.....	12	.....	I. S. N. S. 8.....	Westminster Md. Theo. Sem. 1..
Lake View	John R. Slacks.....	12	.....	I. S. N. S. 8.....	.....
La Porte City.....	L. H. Minkel.....	4	S. U. I. 2.....	I. S. N. S. 3.....	.....
	Margaret McQuilkin ..	7	.....	I. S. N. S. 8.....	.....
	Mrs. H. B. Lizer.....	4	.....	I. S. N. S. 8.....	.....
Larch- wood....	H. B. Metzler.....	11	.....	I. S. N. S. 8.....	.....
Latimer ..	Rollo E. Newcomb.....	16	.....	I. S. N. S. 8.....	.....
Lawler....	Daniel Costigan.....	12	Upper Iowa U. 5	.....	.....
Le Claire..	A. I. Naumann.....	9	Ohio North Univ.	.....	Ohio Univ 1.....
Le Grand	O. B. Adair.	16	Palmer Col part of year.....	I. S. N. S. 1 Sum. T	.....
Lehigh....	E. E. Cavanaugh.....	8	Tobin Col 2.....	I. S. N. S. Sum. T	.....

—THREE YEAR COURSES.

Preparation.

6
m

High School Course.

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Letts.....	Jas. H. Dutton.....	10	Kan. Ag. Col. 1 S. U. I. 2 Sum..	Kan. St. Nor. 1 T I. S. N. S. 1 T.	Bus. Course Hol- ton Uni. 3 mo.. Ladies' Private School Chi.....
	Bessie M. Letts.....	10	.....	.....
Linden....	T. M. Prall.	6	Dak. Uni. 3 Univ. of Chic. 1.....	I. S. N. S. 4.....	.....
	Berma Bland.....	..	Drake 4.....	.....
Lineville..	O. H. Hallen.....	7	Iowa State Col. 3	I. S. N. S. ½ .....	.....
	Lilyan M. Francy	8	.....	I. S. N. S. 3.....	
Logan.....	Chas. F. Blodgett.....	3	Iowa Wesleyan 4.	I. S. N. S. 1.....	Ia. Wes. Acad. 2. Iowa Col. Acad. 1 Loretto Acad. 4..
	Edith M. Fischer.....	6	.....	I. S. N. S. 2	
	Edith R. Milliman.....	7	Iowa Col. 4.....	.....
	Stella M. O'Reilly.....	8	.....	I. S. N. S. 1 term	
Lucas.....	J. W. Miller.....	11	.....	.....	Tilford's Collegi- ate Acad. 3.....
LuVerne..	Ward Hannah	12	.....	I. S. N. S. 2.....	.....
	Miss Nolte.....	1	Naperville 2 ...	.....
Lynnville.	A. T. Gifford.....	12	.....	I. S. N. S. 2.....	.....
Macedonia	H. L. Caillet.....	8	Drake, S. U. I. sum. sessions...	Nebr. State Nor. (Peru) sum. ses.	.....
	Louise Pashby.....	2	.....	I. S. N. S. 2½.....	
Magnolia.	F. F. Stover.....	12	Jewell Col. 2, Els- worth Col. ½...	.....	.....
Manson .	G. W. Young.....	4	Colby Col. 4.....	.....	.....
	Flora A. Allison.....	6	Iowa Col. 4.....	.....
	Grace E. Gabriel.....	6	S. U. I. 4.....	.....

—THREE YEAR COURSES.

Preparation.	of in	High School Courses.					
		Algebra	72	5 35	U. S. History	60	5 30
		Arithmetic	34	5 3	Civics	12	5 30
		General Hist.	36	5 30	Physical Geog.	7	5 30
						
						
B. Ped., M. Di.	1	Algebra	36	5 30	Civics of U. S.	1	5 30
A. B.	3/4	Geometry	34	5 30	Physical Geog.	12	5 30
		Arithmetic	34	5 30	Physics	33	5 30
		General Hist.	36	5 3	English		
		Civics of Iowa	18	4 2	Political Econ.		
						
B. D.	2	Arithmetic	54	5 40	Geometry	36	5 40
		Civics	18	5 4	General Hist.	12	5 40
		English	30	5 4	Botany	14	5 40
		Physiology	18	5 4	Physics	33	5 40
		Latin	72	5 4	Economics	36	5 40
		Algebra	54	5 4	English Lit.	35	5 40
						
A. M., M. Di.	0	Algebra	49	5 35	English	34	5 35
B. Di.	4	Geometry	30	5 35	Physiology	24	5 35
A. B.	2	Arithmetic	2	5 5	Political Econ.	12	5 35
	1 1/2	General Hist.	30	5 35	Latin	1	5 35
		U. S. History	12	5 35			
		Civics	18	5 45			
						
		Algebra	30	5 3	Civics	24	5 30
		Geometry	34	5 30	Physical Geog.	12	5 30
		Arithmetic	34	5 3	Physics	12	5 30
		General Hist.	36	5 30	English	36	5 30
B. Di.	1	Algebra	44	5 3	U. S. History	10	5 25
		Geometry	30	5 40	Civics	21	5 30
		Arithmetic	34	5 30	Physical Geog.	14	5 30
		General Hist.	3	5 3	Physics	18	5 30
B. Di.	5	Algebra	44	5 3	English	12	5 30
		Geometry	34	5 30	Political Econ.		
		Arithmetic	24	5 1		24	5 30
		General Hist.	36	5 3	Latin		
		Physics	36	5 3	German		
						
		Algebra	54	5 40	U. S. History	34	5 40
		Geometry	3	5 4	Civics	20	5 40
		Arithmetic	16	5 4	Physical Geog.	18	5 40
		General Hist.	36	5 40	Physics	72	5 40
						
		Algebra	39	5 40	Civics	24	5 30
		Arithmetic	11	5 40	Physical Geog.	12	5 30
		General Hist.	36	4 3	Physics		
		U. S. History	72	4 3	English		
						
M. A.		Algebra	54	5 4	Physics		
A. B.	5	Geometry	54	5 40	English	18	5 30
A. B.	1	Arithmetic	54	5 4	Physiology	18	5 30
		Gen. History	14	5 30	Political Econ.	18	5 30
		Civics	36	5 40			
		Physical Geog.	18	5 30	Latin		

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Marble Rock	L. E. Eickilberg	12	Mt. Vernon 4.		Cornell Normal Course 1.....
Marne	Warren L. Rankin	12	S. U. I. 2.....		Drake Sum. Sch 6 weeks.....
Massena ..	Royal J. Smalley.....	8	Cornell Col. 4.		Cornell Col. A. 1..
Maurice. ..	A. Van Wechel	11	Hope Col. 1.....		Northwestern Classical A. 4. ..
Maxwell..	O. W. Kirk.....	8	H. P. Col. 2½ ..		
	Bessie Knapp.....	8	H. P. Col. 1½.....		
Maynard..	Artel B. Ward	13	S. U. I. 2.....		
			Drake 4.....		
Mechanics-ville..	Geo. F. Failor.....	6	Iowa Col. 2.	I. S. N. S. 1 Sum. ...	
	Katharine Crim	8	Cornell 4.....		
Melbourne	U. G. Brown.....	12			H. P. Col 2.....
Menlo	James Lawrey	10			Valparaiso Ind. 1½
Milford ...	F. T. Tompkins.	7		I. S. N. S. 2.....	
	May Chase	8		I. S. N. S. ¾.....	

—THREE YEAR COURSES.

Preparation.		High School Courses.					
Degree held.	Yrs experience in H.S.	Branches studied.	Number weeks. Rec. per week. Rec. period.	Branches studied.	Number weeks. Rec. per week. Rec. period.	Branches studied.	Number weeks. Rec. per week. Rec. period.
B. S.	4	Algebra	54				
		Geometry	36				
		Arithmetic	36				
		Gen. History ..	36				
		U. S. History ..	18				
.....	8	Algebra	54				
		Geometry	36				
		Arithmetic	18				
		Gen. History ..	36				
		U. S. History ..	36				
A. B.		Algebra	54				
		Arithmetic	36				
		Gen. History ..	36				
		U. S. History ..	18				
		Civics	36				
.....	4	Algebra	48				
		Arithmetic	72				
		Gen. History ..	18				
		U. S. History ..	48				
.....	6	Algebra	36				
		Geometry	36				
		Arithmetic	36				
A. B.		Algebra	54				
		Arithmetic	36				
		Gen. Hist.	36				
		U. S. Hist.	18				
.....	7	Algebra	54				
		Geom.	36				
B. A.	8	Arithmetic	18				
		Gen. Hist.	36				
		U. S. Hist.	18				
		Civics	36				
		Physical Geog ..	18				
.....	9	Algebra	42				
		Geometry	36				
		Arithmetic	18				
		Gen. Hist.	36				
		U. S. Hist.	18				
.....	11	Algebra	36				
		Geom.	36				
		Arithmetic	42				
		Gen. Hist.	36				
		U. S. Hist.	36				
.....	4	Algebra	60				
.....	5-6	Geometry	36				
		Arithmetic	24				
		Gen. Hist.	36				
		U. S. Hist.	24				
		Civics	24				

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Mitchell...	Walter S. Rodgers.....	9	Uni. Min. 5.....	.....	.....
	Gertrude Williams.....	13	Chas. Cy. Col. $\frac{1}{2}$	.....	.....
Monmouth	E. R. Stoddard.....	10	.....	I. S. N. S. 1.....	North. Ill. Nor 2.
	Anna Belcher	10	.....	.....	.....
	Elsie Trimble.....	9	.....	I. S. N. S. 1.....	.....
Monroe....	J. F. Eakins.....	5	Drake 3.....	I. S. N. S. $\frac{1}{2}$	So. Iowa Nor. 1..
	Jessie M. Place.....	7	Drake 4.....	.....	.....
	Jennie French.....	1	.....	I. S. N. S. 1.....	.....
Moorhead.	Ernest Iler.....	10	.....	.....	West Nor. Col. 1.
Montrose .	G. W. Kennedy.....	13	.....	.....	.....
Moravia. .	T. B. Marksbury	8	Mo. Univ 1.....	Kirksville State Nor. 2 terms.....	.....
McIntire..	J. O. Ralph.....	14	.....	I. S. N. S. 8.....	Denison Nor. 1..
New Hartford	Mary B. Granger.....	9	Cornell (Grad.)..	.....	.....
	Harry L. Ellis	7	.....	I. S. N. S. 4..	Bus. Col. 2.....
New London..	C. D. McClain	7	I. W. U. 4.....	I. S. N. S. 4 terms.	Parsons Col Acad-amy 2..
	Katherine Lundgren.....	8	I. W. U. 4.....	.....	.....
	Fanny F. Reherd (Sp. Mus.)	.....	.....	.....	Thomas Nor. Tr. School 2 Genesee Col. Inst.....
New Virginia	Eldon E. Baker	16	Simpson Col. 2 .....	.....	Dexter Nor. 1
Nichols ...	C. W. Bangs	10	.....	I. S. N. S. 3 .....	.....
Norway ..	W. S. Yeager	10	.....	I. S. N. S. 3 .....	.....
	Grace Foster.....	9	Uni. of Minn. 1 Carleton Col. 1	.....	.....

—THREE YEAR COURSES.

Preparation.

of
the

High School Courses.

E

.

.

.

.

.

E

.

.

E

.

E

E

.

.

E

E

.

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Oakland ..	E. R. Jackson.....	6	Tabor C. 1 S. U. I. 8		Tabor Acad. 1 ...
	Carolyn Tobey.....	8	Radcliffe, Harv'd		Drake Sum. Sch..
	Gertrude Barnard.....	2			
Ocheyedan	J. R. Wilson	8	Chi. Uni. 1 term..	I. S. N. S. 2	
	Elizabeth Lawberty.....	9		I. S. N. S. 2	
Onslow ...	Hugh Mossman.....	12	Cornell Col 2.....		Tilford Colligate Acad. 2.....
Orient.	Thos. B. Roman.....	10		I. S. N. S 1 term..	
Oto.....	M. R. Powers	12			
Oxford....	John Castelo	10			Valpariso 1/2 East- ern Ill. Nor 1. Metropolitan Bus. Col. (Chi) 1/2.....
Paton.	E. L. McConkie.....	12	Cornell Col. 2.....	I. S. N. S. 2.....	
Pierson ...	James Daughton.....	12		I. S. N. S. 2.....	Westrn Nor. Sum Drake S. H. P. S.
Plainfield.	L. Scott Baker	22			West Nor Col. 2.
Plover or Powhatan Twp....	D. H. Rummel.. ..	14	Cornel Col. 1/2	I. S. N. S. 2	Cornell Acad. 1/2..
Pocahon- tas.....	J. J. Rae.....	7	Drake 4.....		
	Genevieve Murphy.....	7	S. U. I. 4.....		

—THREE YEAR COURSES.

Preparation.		High School Courses.			
Degrees held.	Yrs experience in H S.	Branches studied	Number weeks.	Rec. per week.	Rec. period.
B. S.	2	Algebra .....	...	18	5 40
A. B.	7	Geometry .....	...	18	5 40
.....	Gen. History .....	...	15	5 40
.....	U. S. History .....	...	18	5 40
.....	Civics .....	...	25	5 40
.....	Physical Geog .....	...	...	...
.....	Physics .....	...	...	...
B. D.	6	Algebra	7..	24	5 30
B. D.	Geometry .....	...	24	5 30
.....	Arithmetic	5..	...	...
.....	Gen. History .....	...	...	...
.....	Algebra .....	...	22	5 25
.....	Geometry	5..	10	5 25
.....	Arithmetic .....	...	71	5 25
.....	General Hist. .....	...	...	...
.....	U. S. History .....	...	...	...
.....	4	Algebra	7..	106	5 30
.....	Geometry .....	...	24	5 25
.....	Arithmetic	5..	21	5 25
.....	General Hist. .....	...	...	...
.....	Algebra .....	...	120	5 25
.....	Geometry .....	...	4	5 25
.....	Arithmetic	5..	15	5 25
.....	General Hist. .....	...	15	5 25
.....	Algebra .....	...	24	5 25
.....	Geometry	5..	27	5 25
.....	Arithmetic .....	...	72	5 25
.....	General Hist. .....	...	...	...
.....	U. S. History .....	...	...	...
M. D.	1	Algebra .....	...	15	5 05
.....	Arithmetic	5..	8	5 05
.....	General Hist. .....	...	8	5 05
.....	U. S. History .....	...	...	...
B. D.	5	Algebra .....	...	18	5 25
.....	Geometry	5..	15	5 25
.....	Arithmetic .....	...	18	5 25
.....	General Hist. .....	...	14	5 25
.....	U. S. History .....	...	72	5 30
B. S.	2	Algebra	7..	106	5 25
.....	Geometry .....	...	26	5 30
.....	Arithmetic	5..	50	5 30
.....	General Hist. .....	...	...	...
.....	Algebra	7..	106	5 30
.....	Geometry .....	...	18	5 30
B. D. , M. D.	1 1/2	Arithmetic	5..	...	...
.....	General Hist. .....	...	...	...
M. D.	5	Algebra .....	...	18	5 40
.....	Geometry	5..	18	5 40
A. B.	Arithmetic .....	...	108	5 40
.....	General Hist. .....	...	...	...

HIGH SCHOOL STATISTICS

High school.	Names of instructors.	Number of periods.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Pomeroy	D. Patten	6	.....	I. S. N. S. 4	Cedar Val. Sem. 1
	Edna E. Black	2	.....	I. S. N. S. 4	Morningside Col. 2
	Mabel Hoy	4	.....	.....	.....
Prescott	J. A. Griffith	12	Vincennes Univ (Ind.) 8 .....	.....	.....
Preston	W. T. De Mar	14	Drake 5 terms .....	.....	So. Ia. Nor. and Scientific Inst. (Bloomfield) 4...
Pulaski	W. H. Russell	8	Drake Uni. ½ .....	.....	Southern Iowa Normal 1
Radcliffe	LeRoy Anderson	8	Morningside Col. 2 .....	.....	.....
	O. J. Johnson	8	Jewell Lutheran Col. 1 .....	.....	High Park Col. ½
Redding	W. S. Stanton	16	Amity Col. 4 .....	.....	.....
Redfield	E. J. Pollock	7	Tarkio Col. 1 .....	.....	High Park Col. 2.
	L. Blanche Chaney	8	.....	I. S. N. S. ½	High Park Col. 1.
Remsen	John Hayes	8	Col. Communal Bonlogne, France 1½	I. S. N. S. 1 term .....	.....
Rippey	H. A. Glackemyer	12	Avalon Col. 5	I. S. N. S. 1 .....	.....
Riverside	H. L. Bryson	10	S. U. I. 3½ .....	.....	.....
St. Charles	A. H. Anton	12	Drake 1 .....	.....	.....
Soranton	K. G. Lancelot	8	.....	.....	.....
	Grace Kane	6	.....	I. S. N. S. .....	.....

—THREE YEAR COURSES.

Preparation.		High School Courses.											
Degrees held.	Yrs experience in H.S.	Branches studied.	Number weeks.	Rec. per week.	Rec. period.	Branches studied.	Number weeks.	Rec. per week.	Rec. period.	Branches studied.	Number weeks.	Rec. per week.	Rec. period.
M. Di.....	3	Algebra ..	54	5			54	5			108	5	35
M. Di.....	2	Geometry ..	54	5			54	5			108	5	35
.....	2	Arithmetic. ..	54	5			54	5			108	5	35
.....		General Hist. ..	54	5			54	5			108	5	35
.....		U. S. History ..	18	5			18	5			18	5	35
.....		Civics	18	5			18	5			18	5	35
.....		Physical Geog ..	18	5			18	5			18	5	35
.....	7	Algebra	72	5			72	5			144	5	35
.....		Geometry ..	54	5			54	5			108	5	35
.....		Arithmetic. ..	54	5			54	5			108	5	35
.....		General Hist. ..	54	5			54	5			108	5	35
.....		U. S. History ..	12	5			12	5			12	5	35
B. D., B. S., B. Accts.....	.....	Algebra	54	5			54	5			108	5	35
.....		Geometry	54	5			54	5			108	5	35
.....		General Hist. ..	54	5			54	5			108	5	35
.....		Civics	54	5			54	5			108	5	35
B. D.....	3	Algebra ..	54	5			54	5			108	5	35
.....		Arithmetic.	54	5			54	5			108	5	35
.....		Gen. History ..	54	5			54	5			108	5	35
.....	4	Algebra	54	5			54	5			108	5	35
.....		Geometry	54	5			54	5			108	5	35
.....	1	Arithmetic.	18	5			18	5			18	5	35
.....		Gen. History ..	54	5			54	5			108	5	35
.....		U. S. History ..	18	5			18	5			18	5	35
A. B.....	.....	Algebra	32	5			32	5			64	5	35
.....		Arithmetic.	32	5			32	5			64	5	35
.....		Gen. History ..	32	5			32	5			64	5	35
B. Di.....	3	Algebra	36	5			36	5			72	5	40
.....	3	Geometry	36	5			36	5			72	5	40
.....		Arithmetic.	36	5			36	5			72	5	40
.....		Gen. History ..	36	5			36	5			72	5	40
.....		Algebra	54	5			54	5			108	5	45
.....		Geometry	54	5			54	5			108	5	45
.....	3	Arithmetic	18	5			18	5			18	5	45
.....		Gen. History ..	36	5			36	5			72	5	45
.....		Civics	18	5			18	5			18	5	45
B. S., M. Di.....	10	Algebra	54	5			54	5			108	5	35
.....		Geometry	54	5			54	5			108	5	35
.....		Arithmetic.	54	5			54	5			108	5	35
.....		Gen. History ..	54	5			54	5			108	5	35
.....		U. S. History ..	54	5			54	5			108	5	35
.....		Civics	54	5			54	5			108	5	35
.....	1	Algebra	60	5			60	5			120	5	40
.....		Geometry	60	5			60	5			120	5	40
.....		Arithmetic.	18	5			18	5			18	5	40
.....		Gen. History ..	36	5			36	5			72	5	40
.....	1	Algebra	60	5			60	5			120	5	40
.....		Geometry	60	5			60	5			120	5	40
.....		Arithmetic.	18	5			18	5			18	5	40
.....		Gen. History ..	36	5			36	5			72	5	40
.....		U. S. History ..	12	5			12	5			12	5	40
.....	7	Algebra	54	5			54	5			108	5	40
.....	5	Geometry	54	5			54	5			108	5	40
.....		Arithmetic.	18	5			18	5			18	5	40
.....		Gen. History ..	36	5			36	5			72	5	40
.....		U. S. History ..	18	5			18	5			18	5	40

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Shannon City..	O. W. Hunt.....	9	High. Park Col. 8	.....	Dexter Acad. ½..
	Ethel Higgins.....	4	High. Park Col. 1	.....	.....
Sheffield...	H. W. Sutter.....	6	.....	.....	High. Park Col. 8
	Maudie Scott.....	7	.....	.....	.....
Shellsburg	Spencer A. Gilles	10	Sum. Work in S. U. I. and Drake..	.....	Cedar Rapids Business Col. 1..
Silver City	C. B. Woodrum	10	.....	I. S. N. S. Summer School..	Western Normal.
Smithland	C. W. Bays.....	6	.....	.....	High. Park Col. ..
	May Wright.....		.....	.....	High. Park Col. ..
Solon	Amelia McDonnell.....	12	S. U. I. 1½.....	I. S. N. S. 8.....	.....
Springdale	Bion H. Culver	6	U. of Neb. 6	.....	Bavarian Royal U Munich, Ger. 1
	Mabel J. Buedel.....	8	Parson's Col. 4....	I. S. N. S. 1.....	U. of Chi. 8 sum.
Stanton ...	Chas. E. Hill.....	11	.....	Neb. Nor. 2.....	.....
S Center ..	M. D. Sutton	6	Col. of Phy. and Sur., Keokuk 1	I. S. N. S. 2.....	H. P. Nor. Col. 2
	Vida R. Keene.....	6	.....	I. S. N. S. 2.....	.....
	Bernice E. Laidlaw.....	6	.....	.....	Northwest Conservatory of Music, Minneapolis 2
Steamboat Rock	Robt. Morris	12	S. U. I. 1.....	I. S. N. S. 2	.....

—THREE YEAR COURSES.

Preparations.		High School Courses.								
Degrees held.	Tr's experience in H. S.	Branches studied.	Number weeks.	Sec. per week.	Sec. period.	Branches studied.	Number weeks.	Sec. per week.	Sec. period.	Branches studied.
.....	6	Algebra	72				36	2		
.....	1	Geometry	36				18	2		
.....		Arithmetic	36				18	2		
.....		General Hist.	36				18	2		
.....		U. S. History	4				4	2		
B. D.	3	Algebra	54				18	3		
.....	3	Geometry	36				18	2		
.....		Arithmetic	18				18	2		
.....		General Hist.	36				18	2		
.....		U. S. History	18				18	2		
.....		Civics of Iowa	4				18	2		
.....		Civics of U. S.	12				14	2		
.....		Algebra	54				36	3		
.....		Arithmetic	18				18	2		
.....	6	General Hist.	36				36	2		
.....		U. S. History	36				36	2		
.....		Algebra	40				24	5		
.....	3	Geometry	24				20	5		
.....		Arithmetic	36				20	5		
.....		General Hist.	36				28	5		
.....		U. S. History	12				16	5		
B. D.	6	Algebra	72				36	2		
.....	1	Geometry	36				36	2		
.....		Arithmetic	36				34	5		
.....		General Hist.	36				36	5		
.....		U. S. History	36				36	5		
M. D.	1	Algebra	54				34	5		
.....		Geometry	36				34	5		
.....		Arithmetic	24				34	5		
B. S.	11	Algebra	54				72	3		
M. D.	1	Geometry	54				18	5		
.....		General Hist.	36				16	5		
.....		Civics	12							
.....		Physical Geog.	12				26	5		
.....		Physics	36							
.....	3	Algebra	36				30	5		
.....		Geometry	34				30	5		
.....		General Hist.	34				14	5		
.....		U. S. History	12				12	5		
M. Accts.	4 1/2	Algebra	54				3	5		
B. D.	1	Geometry	36				72	5		
.....		Arithmetic	18				13	5		
.....		General Hist.	36				16	5		
.....		U. S. History	36				18	5		
.....	1	Physical Geog.	12							
.....		Algebra	36				14	5		
.....	1	Geometry	36				14	5		
.....		Arithmetic	36				35	5		
.....		General Hist.	36				12	5		
.....		U. S. History	24				20	5		

HIGH SCHOOL STATISTICS

High school	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Stacyville.	H. A. Langley.....	10	.....	I. S. N. S. 2 .....	.....
Statford...	J. M. Holaday	8	.....	.....	Lebanon O. Nor. 1
Swea City.	C. A. Smith.....	9	.....	I. S. N. S. 2.....	.....
Tabor.....	H. F. Volkmann..... Gwendolen Gilliland.....	7	Tabor Col. 5 .....	.....	.....
Thompson	John Ludwickson.....	12	.....	I. S. N. S. 3.....	Woodbine Nor. 1.
Thornton	J. F. Doderer.....	7	.....	I. S. N. S. 3.....	.....
Thurman.	Myron O. Gaston..	5	Tabor Col. 4 S. U. I. 2 Grad. Col..	.....	.....
	Mrs. Emily Colby Gaston..	7	Tabor Col. 4 .....	.....	.....
Tingley ...	Chas. Murray.....	8	Drake 3 .....	.....	.....
	Edith Swain	1	Chicago Univ. 1/2 Simpson 1 .....	.....	Humeston Nor. 1
Tripoll	E. S. Baker.	13	S. U. I. 1.....	I. S. N. S. 4.....	.....
	Olara Hazlett	12	.....	I. S. N. S. 2 .....	.....
Urbana ...	O. T. Fisher.....	12	S. U. I 1 .....	.....	Telford Acad. 3..
Vall.....	F. F. Gordon .....	.....	.....	.....	Frem't Neb. Nor. 3
Van Horne	B. D. Atchley	12	.....	I. S. N. S. 3.....	.....

—THREE YEAR COURSES.

Preparation.		High School Courses.											
Degree held.	Yr's experience in H.S.	Branches studied.			Branches studied.			Branches studied.			Branches studied.		
			Number weeks.	Per week.		Number weeks.	Per week.		Number weeks.	Per week.		Number weeks.	Per week.
		Algebra	54	5	History	18	5	English	90	5			
		Geometry	36	5	Geog.	18	5	Physiology	18	5			
		Arithmetic	18	5		18	5	Political Econ.	18	5			
		Gen. History	54	5		74	5	Botany	18	5			
		Algebra	54	5	History	72	5	English	90	5			
		Geometry	36	5	Geog.	40	5	Physiology	36	5			
		Arithmetic	104	5		86	5	Political Econ.	20	5			
		Gen. History	86	5		36	5	Book-keeping	26	5			
		Algebra	36	5	History	46	5	Physical Geog.	27	5			
		Geometry	42	5	History	34	5	Physiol.	33	5			
		Arithmetic	84	5		86	5	English	84	5			
A. B.		Algebra	72	5		86	5	Book-keeping	36	5			
		Geometry	36	5	Lit.	106	5	Com'l Arith.	8	5			
		Gen. History	36	5		18	5						
		Civics	18	5									
		Physical Geog.	18	5		72	5						
B. D.		Algebra	44	5	History	16	5	English	100	5			
		Geometry	36	5	Geog.	26	5	Physiology	16	5			
		Arithmetic	16	5		20	5	Political Econ.	2	5			
		Gen. History	36	5		86	5	Botany	16	5			
B. D.		Algebra	64	5		12	5	Political Econ.	12	5			
		Geometry	30	5	Geog.	12	5	Botany	12	5			
		Arithmetic	36	5		86	5	Word Analysis	20	5			
		Gen. History	82	5		106	5	Zoology	2	5			
		U. S. History	28	5	ogy	36	5						
A. B. A. M.		Algebra	72	5	History	106	5	Physiology	16	5			
		Geometry	36	5		36	5	Botany	16	5			
		Arithmetic	106	5		86	5	Book-keeping	36	5			
		Gen. History	36	5		286	5	Latin	106	5			
B. P.d.		Algebra	66	5	Hist.	16	5	English	126	5			
		Geometry	36	5	al Geog.	20	5	Political Econ.	16	5			
		Arithmetic	2	5		2	5	Botany	2	5			
		Gen. Hist.	36	5		86	5	Latin	74	5			
B. D., M. D.		Algebra	64	5	al Geog.	86	5	English Lit.	16	5			
		Arithmetic	64	5	rammar	34	5	Physiology	36	5			
		Gen. Hist.	36	5	ic	86	5	Political Econ.	16	5			
		U. S. Hist.	86	5	can Lit.	1		Botany	16	5			
		Civics	28	5				elling	16	5			
		Algebra	86	5	al Geog.	1		stany	18	5			
		Arithmetic	72	5		8		conomics	16	5			
		Gen. Hist.	36	5		7		orthography	16	5			
		U. S. Hist.	36	5	logy	8		stin	36	5			
		Civics	18	5	al Econ.	1							
B. S. & P.d. B.		Algebra	64	5	al Geog.	1		ookkeeping	18	5			
		Geometry	64	5		8		stin	74	5			
		Gen. Hist.	36	5		10							
		Civics	18	5		1							
B. D.		Algebra	44	5	Hist.	1		English	106	5			
		Geometry	26	5		16	5	Physiology	16	5			
		Arithmetic	36	5	al Geog.	12	5	Political Econ.	20	5			
		Gen. Hist.	26	5		86	5						

HIGH CHOOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Van Meter	Ed. R. Monroe.....	18	.....	.....	Dexter, Ia. Nor.
	May Cook.....	2	.....	.....	Valpar., Ind. No.
Van Wert.	F. P. Reed.....	7	Amity College 2 Drake 2½..	.....	Stanberry ½ Nor.
	Mrs. Annis Craft.....	9	.....	.....	Unl. Ill. ⅛..
Walker ...	A. Bruce Alderman.....	18	.....	I. S. N. S. 3 yr...	.....
Waukee...	Wm. Shirley.....	18	S. U. I. 1.....	.....	.....
Wayland..	John E. Evans.....	10	Simpson 4.....	.....	.....
Weldon...	John A. McIntosh.....	12	Cen. Nor. Uni. 3	I. S. N. S. 1.....	.....
	Kate Coffey.....	12	.....	I. S. N. S. ¼.....	.....
Wesley....	J. H. Westcoat.....	7	.....	.....	Corning Acad 1
					W. N. O. 2....
West Bend ..	Guy D. Clevenger.....	5	Mt. Morris Col. 1 (Illinois).....	I. S. N. S. 3.....	.....
	Ida M. Hoebel.....	7	.....	I. S. N. S. 2.....	.....
	Effie Weisbard.....	7	.....	I. S. N. S. 2.....	.....
West Side ...	R. D. Barr.....	5	.....	I. S. N. S. 3.....	.....
	Bess Chase.....	6	.....	I. S. N. S. 2.....	.....
Wheat-land.....	Earl T. Housh.....	8	North. Ill. Col. 2.	.....	Sum. sessions
	Wm. Beckmann.....	7	.....	.....	Felicity N. Ohio
					Lebanon N. Ohio.

—THREE YEAR COURSES.

Preparation.**III****High School Courses.**

HIGH SCHOOL STATISTICS

High school.	Names of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Whittimore....	A. O. Joy.....	1	.....	I. S. N. S. 4.....	.....
Wiota....	A. F. Enenbach.....		.....	.....	National Nor. 8 Carroll Nor. 1 . . .
Woodburn	A. J. Mitchell.....	6	.....	.....	.....
Woodward	Leo Ranney	1	.....	I. S. N. S. 2½	.....
	Louise Rowe.....	8	Iowa State Col. 4.	.....	.....

—TWO YEAR COURSES.

Note:—In those schools offering more than one course the subjects are arranged in groups separated by blank lines as in the four-year courses. All pupils pursue the subjects named in the first group and complete the course by pursuing the subjects in one or more of the supplemental groups.

HIGH SCHOOL STATISTICS-

High school.	Names of instructors.	Number of periods.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Andrew...	Gus. Delaney.....	11	.....	Mo. N. S. S.	G. C. Bus. Col. 1
Arthur....	Hattie Anderson.	15	Iowa State Col. 4	.....	.....
Ashton....	John L. Shearer.....	10	.....	I. S. N. S. S. ....	.....
	Stella McGuire.	2	(In H. S.)	I. S. N. S. 1. ....	.....
Atalissa...	C. R. Laraway.....	11	Drake 2. ....	.....	Simpson Col. 1 ..
Auburn ..	W. D. Wendt.	11	.....	I. S. N. S. S.	Nor. Ind. Norm. 1
	Mary E. Oaster.	2	.....	I. S. N. S. S. ....	.....
Aurora....	Lucy B. Francis.....	.....	.....	I. S. N. S. 1. ....	.....
Ayrshire..	Della Gregg. ....	.....	.....	.....	.....
Beacon....	J. P. McMurray....	12	Oskaloosa Col. 4..	I. S. N. S. 1. ....	.....
Beaman ..	F. E. Stahl.....	16	Upper Iowa 2, Dakota Wesleyan 1	.....	.....
Blairsburg	W. W. Miller.....	8	.....	I. S. N. S. 4. ....	.....
Bode	A. M. Russell	16	.....	.....	Friend's Acad. 4. N. I. N. S. Dixon, Ill. 1, Bus. C. 1.
Bradgate..	O. C. Knoll	14	.....	.....	Nora Springs A. 2.
Brooks	W. L. Stevens... ..	18	Solo Ohio 1.	Kan. State Nor. 1	.....
Calamus ..	H. G. Games	9	.....	.....	Nat'l. Nor. Uni. Lebanon, 1.
Charlotte.	Louis Greenberg	10	Drake 1.....	.....	.....

—TWO YEAR COURSES.

HIGH SCHOOL STATISTIC

High school.	Name of instructors	Number of period..	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Coneaville	Lewis G. Abel.....	10	.....	I. S. N. S. 2 ...	.....
Dakota City.....	E. B. Bravinder	16	.....	I. S. N. S. 2.....	.....
Delaware.	Daisy B. LeMaster.....	24	Rio Grande Col. 2 Taylor Univ. 1..	.....	.....
Delhi.....	J. C. McGee.....	12	.....	I. S. N. S. 3.....	.....
Dickens ...	C. L. Carrington.....	9	.....	I. S. N. S. 3½	Buena Vista C. ½
Dumont...	Alice Swope.	11	H. P. C. 1 Drake 2	.....	.....
	Alice Cowie	11	.....	I. S. N. S. 3 ...	.....
Durant	E. A. Cromer.....	11	Cornell Col. 4 ....	.....	.....
	Mable Dutton.....	11	.....	.....	.....
Dyersville	Will L. Evans.....	..	.....	.....	So. Ia. N. S Drake ½
Ellsworth.	O. S. von Krog. ....	..	H. P. C. 2 Drake 2	.....	Special Inst. in Europe 1..
Farnhamville.....	O. E. Hibbs.....	10	.....	I. S. N. S. 3.....	.....
Fraser	John R. Curry	15	.....	Ill. State Nor. 2.	.....
Fredricksburg.....	Bess M. Rowe	8	.....	I. S. N. S. 1½...	.....
Garnaville	W. E. Lochridge.....	10	.....	.....	Hedrick Nor. 2..
	Ida Helbig.....	2	.....	.....	.....
Germania.	Fred F. Hansen	14	Ia. State Col. 1..	I. S. N. S. 1 Ter	.....

—TWO YEAR COURSES.

Preparation.		High School Courses.											
Degrees held.	Yrs experience in H.S.	Branches studied.			Branches studied.			Branches studied.			Branches studied.		
			Number weeks.	Rec. per week.	Rec. period.		Number weeks.	Rec. per week.	Rec. period.		Number weeks.	Rec. per week.	Rec. period.
B. Di.....	4	Algebra.....	54	5	35	Civics.....	24	5	35	Physiology.....	18	5	35
		Arithmetic.....	35	5	35	Physical Geog.....	18	5	35	Botany.....	18	5	35
		General Hist.....	35	5	35	Physics.....	36	5	40				
		U. S. History.....	36	5	30	English.....	40	5	40				
		Algebra.....	54	5	25	Civics.....	24	5	25	Physiology.....	36	5	20
		Arithmetic.....	35	5	25	Physical Geog.....	18	5	25				
		U. S. History.....	34	5	25	English.....	10	5	25				
		Algebra.....	44	5		Civics.....	24	5		Political Econ.....	24	5	
		Arithmetic.....	35	5		Physical Geog.....	24	5		Book-keeping.....	24	5	
		General Hist.....	48	5		Physics.....	36	5					
		U. S. History.....	12	2		English.....	48	5					
B. Di.....	6	Algebra.....	54	5	35	U. S. History.....	18	5	30	English.....	48	5	25
		Geometry.....	36	5	35	Civics.....	20	5	35	Physiology.....	18	5	25
		Arithmetic.....	36	5	30	Physical Geog.....	18	5	30	Political Econ.....	20	5	25
		General Hist.....	36	5	35	Physics.....	36	5	35	Latin.....	36	5	25
B. Di.....	2	Algebra.....	36	5	30	Physical Geog.....	36	5	30	Political Econ.....	36	5	30
		Arithmetic.....	24	5	30	Physics.....	36	5	30	Book-keeping.....	18	5	30
		U. S. History.....	8	5	35	English.....	48	5	30				
		Civics.....	18	5	30	Physiology.....	8	5	35				
		Algebra.....	54	5	30	Civics.....	72	5	2	Physiology.....	36	5	30
B. Di.....		Arithmetic.....	36	5	25	Physics.....	54	5	20	Political Econ.....	36	5	30
		U. S. History.....	36	5	20	English.....	54	5	20	Didactics.....	12	5	20
B. Ph.....	6	Algebra.....	36	5	35	Civics.....	18	5	30	Botany.....	18	5	30
		Arithmetic.....	36	5	30	Physical Geog.....	18	5	35	Book-keeping.....	18	5	30
		Gen. History.....	24	5	25	Physics.....	18	5	35				
		U. S. History.....	8	5	35	English.....	108	5	30				
		Algebra.....	40	5	30	Physical Geog.....	12	3	30	Political Econ.....	24	5	30
		Arithmetic.....	12	2	25	Physics.....	28	3	35	Botany.....	12	5	30
		Gen. History.....	16	5	25	English.....	110	2	25	Book-keeping.....	20	2	30
		Civics.....	16	3	30	Physiology.....	16	2	30	Pennmanship.....	40	5	30
		Algebra.....	36	5	25	U. S. History.....	18	5	25	Physics.....	36	5	25
		Arithmetic.....	18	5	25	Civics.....	18	5	25	English.....	72	5	25
		Gen. History.....	9	5	25	Physical Geog.....	18	5	25	Political Econ.....	18	5	25
B. Di.....	9	Algebra.....	54	5	35	Civics.....	20	5	5	Physiology.....	36	5	35
		Arithmetic.....	18	5	35	Physical Geog.....	24	5	5	Botany.....	18	5	35
		General Hist.....	8	5	35	Physics.....	2	5	35	Review.....	12	5	35
		U. S. History.....	16	5	35	English.....	12	5	35				
		Algebra.....	72	5	20	Civics.....	36	5	2	Physiology.....	36	5	30
		Arithmetic.....	24	5	20	Physical Geog.....	36	5	2	Orthography.....	72	5	30
		General Hist.....	36	5	20	Physics.....	36	5	2	Book-keeping.....	20	5	30
		U. S. History.....	36	5	20	English.....	72	5	2	Latin—Begin.....	36	5	30
		Algebra.....	36	5	35	General Hist.....	72	5	36	English.....	108	5	20
		Geometry.....	14	5	45	U. S. History.....	36	5	25				
		Arithmetic.....	36	5	30	Civics.....	72	5	31				
		Algebra.....	36	5		Civics.....	18	5		Physiology.....	10	5	
		Arithmetic.....	12	5		Physical Geog.....	18	5		Political Econ.....	12	5	
		General Hist.....	4	5		Physics.....	36	5		Botany.....	14	5	
		U. S. History.....	12	5		English.....	66	5		Book-keeping.....	12	5	
		Algebra.....	36	5	25	U. S. History.....	36	5	2	English.....	72	5	30
		Arithmetic.....	46	5	35	Civics.....	18	5	25				
		General Hist.....	34	5	30	Physical Geog.....	1	5	25				

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number rec. period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Gibson	C. W. Moore.....	..	.....	I. S. N. S.....	.....
Grant.	C. M. Neveln.....	12	Des M. Col. 2 Drake 2 terms..	.....	.....
Gravity...	D. Paul Dale	14	Drake 3/8 .....	.....	.....
Hamilton ..	S B. Wolfe .....	..	Simpson Col. 1...	.....	.....
Hancock ..	Mrs. K. Renshaw.....	17	.....	I. S. N. S. 1.....	.....
Hazelton..	Anna Maloney.....	18	.....	I. S. N. S. 2....	.....
Hillsdale.	R. D. Nelson.....	18	.....	I. S. N. S. 1/8.....	.....
Kensett ..	A. L. Burgoon.....	5	Tobin College 1, Drake 1 ..	.....	.....
Kirkman..	Roland Meyers.....	15	.....	.....	Woodbine Nor. 1.
Kirkville..	C. H. Thomas.	12	I. W. U. 1.....	.....	High. Park Col. 1
Knowlton.	Frank S. Wiley.....	12	.....	.....	Drake Sum. Sch.3
Lester.....	C. B. Hightower.....	18	Drake. ....	.....	Dexter Normal...
Liberty- ville..	C. E. Ward, Jr.....	19	Ia. Wes. 2.....	I. S. N. S. Sum. 1 .....	.....
Linn Grove..	J. P. Senning.	8	North West. Col. Naperville Ill. 4 S. U. I. 1..	.....	West. Union Col.2 Le Mars..

—TWO YEAR COURSES.

Preparation.		High School Courses.											
Degree held.	Yr's experience in H.S.	Branches studied.	Number weeks.	Rec. per week.	Rec. period.	Branches studied.	Number weeks.	Rec. per week.	Rec. period.				
B. Di.....		Algebra	32	5	15	Civics.....	32	5	15	English	34	5	30
		Geometry	32	5	25	Physical Geog.	32	5	15	Physiology	5	5	30
		General Hist	31	5	20	Physica.....	32	5	20	Political Econ..	32	5	30
		Algebra.....	72	5	0	Civics.....	20	5	25	Political Econ..	18	5	30
		Arithmetic.....	72	5	3	Physical Geog.	16	5	30	Book-keeping .	18	...	...
		General Hist.....	24	5	9	English.....	96	5	3				
		U. S. History.....	36	5	25	Physiology	16	5	37				
		Algebra	36	5	25	Civics.....	2	5	25	Political Econ. .	20	5	35
		Geometry.....	36	5	2	Physica.....	10	5	25				
		General Hist.....	44	5	34	English.....	72	5	25				
	4	Algebra.....	34	5	3	Civics.....	20	5	2	Physiology.....	32	5	15
		Geometry-Solid	32	5	3	Physical Geog.	30	5	20				
		U. S. History.....	24	5	25	English.....	44	5	25				
	2	Algebra.....	36	5	2	Civics.....	36	5	25	English.....	72	5	35
		Arithmetic.....	36	5	25	Physical Geog.	24	5	25	Physiology	24	5	35
		General Hist.....	8	5	25	Physica.....	36	5	25				
	1	Algebra.....	32	5	30	Civics.....	36	5	30	English.....	30	5	30
		Arithmetic.....	32	5	30	Physical Geog.	15	5	30				
		General Hist.....	16	5	3	Physica.....	32	5	30				
		Algebra.....	36	5	3	Civics.....	16	5	20	Physiology	16	5	30
		Arithmetic.....	36	5	3	Physical Geog.	16	5	20	Political Econ..	5	5	30
		General Hist.....	36	5	3	Physica.....	32	5	20	Botany.....	12	5	30
		U. S. History.....	36	5	2	English.....	64	5	20				
		Algebra.....	44	5	25	Civics.....	24	5	25	Political Econ..	16	5	35
		Arithmetic.....	24	5	2	Physical Geog.	2	5	25	Botany.....	6	5	35
		General Hist.....	46	5	17	Physica.....	32	5	25	Book keeping..	26	...	...
		U. S. History.....	12	5	3	English.....	44	5	25				
	3	Algebra.....	5	5	3	Physical Geog.	16	5	25	Political Econ. .	16	5	35
		General Hist.....	3	5	25	Physica.....	32	5	30	Botany.....	16	5	35
		Civics.....	14	5	25	English.....	72	5	25				
	4	Algebra.....	48	5	30	Civics.....	32	5	25	Physiology.....	16	5	30
		Arithmetic.....	4	5	3	Physical Geog.	32	5	30	Political Econ. .	16	5	35
		General Hist.....	3	5	3	Physica.....	16	5	35				
		U. S. History.....	62	5	30	English.....	61	5	30				
	1	Algebra.....	32	5	30	Physica.....	32	5	30	Book-keeping..	32	5	30
		Geometry.....	3	5	30	English.....	32	5	25	Latin.....	32	5	30
		General Hist.....	32	5	25	Political Econ.	16	5	35				
		Civics.....	16	5	30	Botany.....	16	5	30				
		Algebra.....	36	5	...	Physical Geog.	24	5	...	Political Econ. .	24	5	...
		Arithmetic.....	36	5	...	Physica.....	24	5	...				
		U. S. History.....	36	5	...	English.....	64	5	...				
		Civics.....	32	5	...	Physiology	36	5	...				
		Algebra.....	72	5	3	U. S. History.....	36	5	3	English.....	72	5	35
		Geometry.....	20	5	30	Civics.....	16	5	35	Physiology	20	5	35
		Arithmetic.....	36	5	25	Physical Geog.	12	5	3	Political Econ. .	16	5	35
		General Hist.....	36	5	25	Physica.....	36	5	30				
		Algebra.....	54	5	30	Physical Geog.	18	5	3	English Hist....	18	5	40
		Geometry.....	36	5	30	Physica.....	12	5	3	Hist. of Greece..	12	5	40
		Arithmetic.....	16	5	30	English Lit.....	36	5	30	Zoology.....	18	5	40
		General Hist.....	36	5	40	Physiology	18	5	30	Nature Study..	18	5	40
		U. S. History.....	36	5	30	Political Econ.	16	5	4	Botany.....	18	5	40
	5	Civics.....	36	5	30								

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Little Rock..	A. J. Donald.....	8	.....	I. S. N. S. ....	.....
Lerhville.	N. L. McDiarmid.....	8	.....	.....	Mich. State Nor. Col. 4.....,
	B. A. Forrester.....	7	.....	I. S. N. S. 2....	.....
Lovilia....	Newton J. Hibbs	20	H. P. Col 2½....	.....	.....
Lowden...	B. S. Longerbeam.....	9	.....	.....	Valparaise ¼.....
Manly...	H. E. Dunn	14	.....	.....	Nora Springs Nor Col.....
Martins- burg...	W. H. Fasold.....	18	Drake.....	.....	.....
Meriden ..	W. O. Dailey.....	16	.....	.....	.....
Modale....	Susie Tamisiea.....	17	.....	I. S. N. S. 1.....	Woodbine Nor. 1.
Mondamin	Geo. E. Missildine.....	11	.....	I. S. N. S. 4.....	.....
McCalls- burg	O. M. Lotton.....	14	.....	.....	Northern Ill. Nor. Dixon
Nodaway.	C. V. Frazier.....	8	.....	.....	.....
Ollie.	S. E. Dixelbias.....	.....	.....	I. S. N. S 1½ .....	.....
Ossian	Chas. A. Russell.....	12	.....	.....	Decorah Inst 4 yr.
Pacific Jet.	W. B. Gregg	12	.....	.....	Valparaiso ?..... H. P. Col. 1 term
Panama..	Albert McGinn.....	16	U. of Mo .....	.....	Denison College ½ Drake 1-6.....

—TWO YEAR COURSES.

Preparation.		High School Courses.		
Degrees held.	Yr's experience in H. S.	Branches studied.	Number weeks.	Rate per week.
.....	2	Algebra.....	72	
.....		Geometry.....	36	
.....		Arithmetic.....	36	
.....		General Hist.....	36	
.....		Algebra.....	46	
.....		Geometry.....	36	
B. D.		Arithmetic.....	72	
B. D.	7	Algebra.....	82	
.....		Arithmetic.....	82	
.....		Gen. History.....	16	
.....		U. S. History.....	16	
.....		Civics.....	16	
.....	3	Algebra.....	36	
.....		Arithmetic.....	5	
.....		Gen. History.....	36	
.....		Algebra.....	26	
.....		Arithmetic.....	36	
.....		Gen. History.....	36	
.....		Algebra.....	26	
.....		Arithmetic.....	16	
.....		Gen. History.....	32	
.....		U. S. History.....	16	
.....		Algebra.....	54	
.....		Arithmetic.....	16	
.....		Gen. History.....	36	
.....		U. S. History.....	12	
.....	3	Algebra.....	36	
.....		Arithmetic.....	36	
.....		General Hist.....	12	
M. D.	2	Algebra.....	60	
.....		Arithmetic.....	36	
.....		General Hist.....	36	
.....	16	Algebra.....	20	
.....		Arithmetic.....	36	
.....		General Hist.....	20	
.....	3	Algebra.....	48	
.....		Arithmetic.....	36	
.....		U. S. History.....	34	
.....		Civics.....	18	
.....	4	Algebra.....	32	
.....		Arithmetic.....	32	
.....		General Hist.....	32	
.....	7	Algebra.....	76	
.....		Arithmetic.....	34	
.....		Gen. History.....	38	
.....		Algebra.....	36	
.....	5	Geometry.....	18	
.....		Arithmetic.....	36	
.....		Gen. History.....	36	
.....	14	Algebra.....	34	
.....		Arithmetic.....	26	
.....		Gen. History.....	36	
.....		U. S. History.....	36	

HIGH SCHOOL STATISTICS

High school.	Name of instructor.	Number of period.	Preparation.		
			Years in college or university.	Years in a State Normal.	Years in other institutions above high school grade.
Farnell ..	Mark Mullin.....	10	.....	.....	Nor Ind Nor Col 2 West Nor. Col. 2.
Persia	L. A. Giddings	8	.....	.....	Woodbine Nor. 3
Pilot Mound	E. E. Bently.....	10	Simpson 2 .....	.....	.....
Pleasanton...	Emma Mark	8	Simpson Co. 2½ .....	.....	H. P. Col. 1½. O. C. C. C. 18 mo..
Plymouth	Elmer Charlson.....	10	.....	I. S. N. S. 2½ ..	.....
Polk City.	L. H. Andrews.....	8	S. U. I. 1.....	I. S. N. S. 3.....	.....
Prairie- burg.....	Llewellyn Dunlap.....	10	Coe Col. 4.....	.....	.....
Princeton.	C. G. Umbaugh	10	.....	I. S. N. S. 3.....	.....
Promise City.	J. S. Ulm	11	.....	I. S. N. S. 2 sum- mer terms.....	.....
Quasqueton.....	Anna E. Barrett....	12	.....	I. S. N. S. 3.....	.....
Quimby...	J. A. Gillaspie.....	.....	Drake 5. ....	.....	.....
Richland..	J. H. Atkinson.....	10	.....	I. S. N. S. 1½ ..	.....
Ridgeway	H. N. Williams.....	17	Cornell 1.....	.....	.....
Riverton	Will R. Woodruff..... Anora Stephens.	6 7	Weeping Water 1 Simpson Col.....	.....	Fremont Nor. 1..
Rodney...	Chas. R. Wiseman.....	13	N. W. Wesleyan Univ.....	.....	.....

—TWO YEAR COURSES.

Preparation.		High School Courses.											
Degrees held.	Yr's experience in H.S.	Branches studied.	Number weeks.	Rec. per week.	Rec. period.	Branches studied.	Number weeks.	Rec. per week.	Rec. period.	Branches studied.	Number weeks.	Rec. per week.	Rec. period.
A. B.....		Algebra.....	51	5	30	Civics.....	18	5	30	Physiology.....	18	5	30
		Arithmetic.....	51	5	30	Physical Geog... ..	18	5	30	Political Econ... ..	18	5	30
		Gen. History..	34	5	30	Physics.....	18	5	30	Music.....	72	2	30
		U. S. History..	18	5	30	English.....	72	1	30				
.....	2	Algebra.....	72	5	25	Civics.....	82	1	25	English.....	72	5	20
		Arithmetic.....	12	5	25	Physical Geog....	16	1	25	Physiology.....	24	5	20
		U. S. History..	24	5	20	Physics.....	36	1	20	Political Econ..	16	1	25
.....		Algebra.....	86	5	25	Civics.....	20	5	15	Physiology.....	24	5	15
		Arithmetic.....	20	5	15	Physical Geog... ..	36	5	15	Political Econ..	12	5	15
		Gen. History.....	34	5	15	Physics.....	24	1	15				
		U. S. History..	24	5	15	English.....	72	5	15				
.....		Algebra.....	82	5	30	U. S. History... ..	82	5	30	English.....	48	5	20
		Arithmetic.....	64	5	30	Civics.....	3	5	30	Physiology.....	16	5	20
		General Hist...	32	5	30	Physical Geog... ..	16	5	20	Political Econ..	16	5	20
B. Di.....	2	Algebra.....	72	5	20	U. S. History... ..	86	5	30	Physics.....	36	5	20
		Arithmetic.....	18	5	20	Civics.....	16	5	15	English.....	10	1	25
		General Hist...	36	5	20	Physical Geog... ..	24	1	20				
M. Di.....	7	Algebra.....	82	5	25	Civics.....	16	5	20	Physiology.....	2	5	20
		Arithmetic.....	82	5	20	Physics.....	82	5	25	Book-keeping ..	80	5	..
		U. S. History..	24	5	20	English.....	64	1	20				
Ph. B.....		Algebra.....	72	5	25	U. S. History... ..	72	5	20	English.....	86	1	25
		Arithmetic.....	72	3	25	Physical Geog... ..	14	1	20	Physiology.....	18	5	20
		General Hist...	32	5	30	Physics.....	36	5	30				
B. Di.....	2	Algebra.....	36	5	30	U. S. History... ..	18	5	30	English.....	108	5	30
		Arithmetic.....	36	5	30	Civics.....	72	1	30	Physiology.....	18	5	30
.....		Algebra.....	64	5	30	Civics.....	16	5	25	Political Econ..	16	5	30
		Geometry.....	3	5	30	Physical Geog... ..	16	5	30	Botany.....	16	5	30
	3	Arithmetic.....	32	5	30	Physics.....	12	5	30	Book-keeping ..	10	5	40
		General Hist...	8	1	30	English.....	4	1	30	Latin.....	3	5	30
		U. S. History..	16	5	30	Physiology.....	16	5	30				
B. Di.....	3	Algebra.....	36	5	20	Civics.....	80	5	20	Physiology.....	12	5	20
		Arithmetic.....	36	5	20	Physical Geog... ..	18	5	20	Political Econ..	12	5	20
		General Hist...	36	5	20	Physics.....	18	5	20				
		U. S. History..	12	5	20	English.....	60	5	20				
A. B. A. M.....		Algebra.....	36	5	20	U. S. History... ..	24	5	20	English.....	84	5	30
		Arithmetic.....	12	5	20	Civics.....	14	5	20	Physiology.....	12	1	30
		General Hist...	36	5	20	Physical Geog... ..	24	5	15				
.....	5	Algebra.....	56	5	30	Civics.....	18	5	30	English.....	72	5	35
		Arithmetic.....	16	5	30	Physical Geog... ..	36	5	30	Political Econ..	20	1	30
		General Hist...	36	5	30	Physics.....	36	5	30				
.....		Algebra.....	54	5	25	U. S. History... ..	36	5	25	English.....	90	5	25
		Arithmetic.....	14	5	25	Civics.....	36	5	25	Political Econ..	34	5	25
		General Hist...	36	5	25	Physical Geog... ..	18	5	25	Latin.....	36	5	25
.....	15	Algebra.....	44	5	40	Civics.....	36	5	35	English.....	72	5	30
		Arithmetic.....	18	5	40	Physical Geog... ..	20	5	35	Physiology.....	16	5	35
		General Hist...	36	5	40	Physics.....	36	5	40	Book-keeping... ..	20	5	35
.....		Algebra.....	36	5	20	U. S. History... ..	18	5	20	Physics.....	32	5	20
	1	Arithmetic.....	16	5	25	Civics.....	32	5	20	English.....	72	5	30
		General Hist...	36	5	20	Physical Geog... ..	18	5	20	Book-keeping ..	19	5	20

HIGH SCHOOL STATISTICS

High school.	Name of instructors.	Number of period.	Preparation.		
			Years in college or university.	Years in state Normal.	Years in other institutions above high school grade.
Rose Hill.	Frank Souter.....	16	Oskaloosa Col. 2..	.....	H. P. Col. 1
Rowan....	M. L. Howell.....	18	.....	I. S. N. S. ....	.....
Ryan.....	Mary Waddick.....	20	.....	I. S. N. S. 4 ter..	.....
Schleswig.	F. N. Olry.....	16	.....	I. S. N. S. 1½ .....	.....
Searsboro.	F. S. Wright	16	.....	.....	Cor. Col. 2.....
South English.	O. Hamersly	14	.....	I. S. N. S. 3.....	.....
Swaledale.	G. C. Clemmer.....	11	Cornell 2 .....	.....	.....
Tracy	H. H. Van Benthuyzen.....	20	.....	.....	.....
Union ville.....	W. K. Bishop.....	8	.....	I. S. N. S. 5 terms	.....
Walcott...	Henry E. Ronge.....	5	.....	.....	.....
Washta...	W. E. Kapp	8	U. of Mich. 4.....	.....	S. U. I. 1 sum. ses
Winthrop.	W. E. Moss.....	6	.....	I. S. N. S. 2	High. Park Col. 3 mo., Cedar Rap- ids Bus. Col. 3 m
	Grace Shea	8	.....	.....	.....
Woolstock	E. F. Snow.....	12	Drake 4 .....	.....	.....

— TWO YEAR COURSES.

Preparation.		High School Courses.									
Degrees held.	Yrs. experience in H.S.	Branches studied.	Number weeks.	Rec. per week.	Rec. period.	Branches studied.	Number weeks.	Rec. per week.	Rec. period.	Branches studied.	Number weeks.
.....	3	Algebra	36	5	..	Algebra	36	5	..	Algebra	90
.....		Arithmetic	36	5	..	Arithmetic	36	5	..	Arithmetic	18
.....		U. S. History ..	18	5	..	U. S. History ..	18	5	..	U. S. History ..	18
.....	1	Algebra	36	5	..	Algebra	36	5	..	Algebra	99
.....		Arithmetic	36	5	..	Arithmetic	14	5	..	Arithmetic	14
.....		Gen. History ..	36	5	..	Gen. History ..	20	5	..	Gen. History ..	14
.....	1	Algebra	72	5	..	Algebra	36	5	..	Algebra	126
.....		Arithmetic	72	5	..	Arithmetic	36	5	..	Arithmetic	36
.....	5	Algebra	36	5	..	Algebra	36	5	..	Algebra	18
.....		Arithmetic	36	5	..	Arithmetic	18	5	..	Arithmetic	36
.....		U. S. History ..	54	5	..	U. S. History ..	36	5	..	U. S. History ..	36
.....		Civics	24	5	..	Civics	24	5	..	Civics	24
.....		Physical Geog. ..	36	5	..	Physical Geog. ..	16	5	..	Physical Geog. ..	16
.....	6	Algebra	42	5	..	Algebra	20	5	..	Algebra	16
.....		Arithmetic	36	5	..	Arithmetic	16	5	..	Arithmetic	36
.....		Gen. History ..	42	5	..	Gen. History ..	24	5	..	Gen. History ..	36
.....		U. S. History ..	12	5	..	U. S. History ..	42	5	..	U. S. History ..	16
B. D.		Algebra	32	5	..	Algebra	16	5	..	Algebra	16
.....		Arithmetic	32	5	..	Arithmetic	32	5	..	Arithmetic	16
.....		General Hist. ..	32	5	..	General Hist. ..	32	5	..	General Hist. ..	16
.....		U. S. History ..	16	5	..	U. S. History ..	16	5	..	U. S. History ..	16
.....		Civics	16	5	..	Civics	16	5	..	Civics	16
.....	4	Algebra	36	5	..	Algebra	35	5	..	Algebra	72
.....		Arithmetic	36	5	..	Arithmetic	24	5	..	Arithmetic	12
.....		General Hist. ..	36	5	..	General Hist. ..	36	5	..	General Hist. ..	36
.....	10	Algebra	64	5	..	Algebra	32	5	..	Algebra	96
.....		Arithmetic	32	5	..	Arithmetic	16	5	..	Arithmetic	16
.....		U. S. History ..	16	5	..	U. S. History ..	16	5	..	U. S. History ..	16
.....	1	Algebra	32	5	..	Algebra	16	5	..	Algebra	32
.....		Arithmetic	32	5	..	Arithmetic	16	5	..	Arithmetic	16
.....		General Hist. ..	32	5	..	General Hist. ..	32	5	..	General Hist. ..	16
.....		U. S. History ..	16	5	..	U. S. History ..	32	5	..	U. S. History ..	16
.....	3	Algebra	40	5	..	Algebra	30	5	..	Algebra	30
.....		Geometry	40	5	..	Geometry	20	5	..	Geometry	30
.....		Arithmetic	40	5	..	Arithmetic	40	5	..	Arithmetic	60
.....		General Hist. ..	40	5	..	General Hist. ..	120	5	..	General Hist. ..	60
.....		U. S. History ..	40	5	..	U. S. History ..	40	5	..	U. S. History ..	40
A. B.	5	Algebra	36	5	..	Algebra	15	5	..	Algebra	36
.....		Geometry	36	5	..	Geometry	18	5	..	Geometry	72
.....		General Hist. ..	36	5	..	General Hist. ..	18	5	..	General Hist. ..	18
.....		Algebra	72	5	..	Algebra	36	5	..	Algebra	72
.....		Civics	36	5	..	Civics	36	5	..	Civics	36
B. D.	3	Physical Geog. ..	12	5	..	Physical Geog. ..	24	5	..	Physical Geog. ..	24
.....	4	Algebra	54	5	..	Algebra	36	5	..	Algebra	144
B. S.		Arithmetic	36	5	..	Arithmetic	18	5	..	Arithmetic	18
.....		General Hist. ..	36	5	..	General Hist. ..	18	5	..	General Hist. ..	36

INDEX.

☞ The numbers in column I refer to pages in Part I, while those in Column II refer to pages in Part II of this report.

	Part I.	Part II.
Accredited Schools—For Training of Teachers.....	29	
For College Preparation—High Schools.....		161
Private Schools		161
Agriculture in Public Schools.....	83	
Comments of County Superintendents on	85	
Boys' Agricultural Clubs and Girls' Home Culture Clubs.....	40	
Outline of Work for Boys' Agricultural Clubs.....	41	
Outline of Work for Girls Home Culture Clubs.....	43	
Arbor Day—Recommendation concerning.....	75	
Attorney General—Opinion Concerning County School Tax.....	95	
Attendance—Compulsory.....	79	
Total Average Daily.....	6	5, 58
City, Town and Village and Rural Schools Compared	23	
Non-Resident and Tuition.....		5, 58
Average Daily—By Terms in each County	7, 23	102
Apparatus	7, 28	5, 28
Appeals.....	9	18, 68
Board of Directors—Circulars to.....	69, 78, 83	
Bird Day	108	
Birds—Iowa Statutes Protecting	110	
Board of Examiners—The Educational—Membership—Officers.....	1	
Buildings and Grounds, School.....	155	
Circulars of Information and Suggestions—1934-1935.....	66	
To County Superintendents.....	66, 81	
Concerning Flag Day.....	63	
Official Circulars	69	
To Boards of Directors.....	69, 78, 83	
To the Secretary	78, 86, 93	
To the Treasurer.....	94	
To the President of the Board.....	95	
Official Call of County Superintendents.....	74, 91	
Concerning Arbor Day.....	75	
Ruling Concerning Supplemental Institutes	76	
School Enumeration.....	77	
To the Director of the Sub-District	89, 92	
Concerning the Reading Circle.....	92	
County School Tax—Opinion of Attorney General—Concerning the	95	
Christmas—Selections for	114	
Certificates, State—Dates of Examinations	181	
Diplomas.....	182, 184, 186	
Regular.....	182, 184, 186	
Special.....	183, 184, 186	
Primary	183, 184, 186	
Two-Year.....	184, 186	
Summary	184, 186	
Names of Holders of.....	142	
Regulations concerning.....	171	
County, Number and Classes.....	9	16, 65
Fees Collected.....	10	22, 73

	Part I	Part II
Corporations, School: Number Classes.....	6	5, 49
Large Versus Small.....	20	
Libraries—Circular Concerning	81	
Number of Volumes	7	5, 43, 53, 94
Amount expended		43, 94
Conditions and Needs of Iowa Rural Schools		96
Country School Problem—an address.....		116
Consolidation—Present Status.....		125
Sentiment Concerning.....		127
Legal Status.....		128
Study of Three Schools....		130
Lake Township, Clay County.....		130
Lloyd Township, Dickinson County.....		134
Buffalo Township, Winnebago County.		137
Conclusions concerning.....		139
Albion and Marathon Consolidated Schools ..		140
In Indiana.....		141
Course of Study—High Schools—Suggestive....		163
Suggested by Iowa State Teachers Association.....		166
Experiment of Iowa State Normal—Concerning.....		168
Exhibit of Curriculum as used at Iowa State Normal.....		174
High Schools Classified by Length of—Four-Year.....		176
Three-Year		258
Two-Year.....		290
Domestic Science—Table of Iowa Schools Having.	49	
Place of in Public Schools.....	50	
Manual Training and,—In the State Normal.....	56	
Directors—Of Sub-Districts—Circular to....	89, 92	
Diplomas—State Examinations Held....	131, 132, 134, 136	
Names of Holders.....	143	
Questions Used.....	154	
Regulations Governing.....	171	
Districts—School, Numbers, Classes.....	6	5, 49
Large Versus Small.....	20	
Libraries.....	7	5, 43, 53, 40
Enumeration—Circular Concerning.....	77, 92, 93	
Of those of School Age.....	6	5, 53
Of those Seven to Fourteen.....		5, 53
Examiners—Educational Board of—Membership Officers.....	1	
Report of.....	131	
Statement—Licences issued—Rejections—Fees Collected.....	132	
Fees Deposited with State Treasurer.....	135	
Expenses	135, 138	
Summary	136	
Regulations concerning certificates.....	171	
Expenses—Board of Examiners	135	
Itemized Statement of.....	138	
Examinations—State—When and Where held.....	131	
Questions used in.....	154	
Fees Collected.....	132	
County—Number Examined—Rejections	9, 23	14, 64
Fees Collected.....	10	22, 72
Enrollment—Total	6	5, 43
Corporations in each County Classified by.		96
City, Town and Village and Rural Schools Compared.....	23	
Education of the Farm Boy and Girl.....		143
Flag Day—Observance of.....	63	
Selections for.....	93	
Fees—Examination Collected by Board of Examiners.....	132	
Deposited with State Treasurer.....	135	
Examination—Collected by County Superintendents.....	10	22, 72
Registration—Collected by County Superintendents.....	10	22, 72

	Part I	Part II
Funds—Receipts—Expenditures.....	7, 10	8, 57
Contingent.....	8	11, 18, 61, 68
School House.....	7	10, 12, 60, 62
Teachers'.....	8	8, 57
Institute.....	10	22, 72
Faculties—High School—Preparation, Degrees, etc., Summary....		162
Of High Schools Classified by Length of Course—Four-Year.....		176
Three-Year.....		258
Two-Year.....		290
Institute.....		26, 76
Handwork in Public Schools.....	52	
High Schools.—Accredited by State University.....		161
Faculties.—College Preparation Degrees Etc. Summary ..		163
Classified by Length of Course—Four-Year.....		176
Three-Year Course.....		258
Two-Year Course.....		290
Suggestive Courses for.....		168
Suggestive Courses Approved by Iowa Teacher's Association.....		166
Experiment of Iowa State Normal—Concerning Course.....		168
Exhibit of Curriculum as Used in Iowa State Normal.....		174
Institutes—Buling Concerning Supplemental.....	76	
Attendance, Receipts, Expenditures.....	10	22, 74
Juvenile Court Law—The.....	53	
Comments of District Judges.....	58	
Number of Cases Tried under the Law.....	62	
Suggestions To Improve—.....	62	
States Having—.....	65	
Kindergarten—The.....	48	
List of Public Kindergartens.....	44	
Kindergarten at Iowa State Normal.....	44	
Letter of Transmissal.....	8	
Libraries—Rural—Circular Concerning.....	81	
Number of Volumes.....	7, 28	5, 43, 58, 94
Amount Expended.....		48, 94
Law for—Enforcement of.....	79	
Licensing Teachers—Statistics.....	9, 10, 28, 131, 152, 154	14, 22, 64, 72
Address on.....		147
Manual Training—Statement Concerning.....	47	
Table of Iowa Schools Having.....	48	
Manual Training and Domestic Science in Iowa State Normal.....	56	
Meetings of Corporation—Circulars Concerning Annual.....	86	
Concerning Notices of.....	78	
Of School Boards—Regular.....	69, 78, 83, 93, 14, 95	
Of Sub-District—Regular.....	89, 93	
Memorial Day—William Mc Kinley.....	111	
The first Proclamation.....	111	
Selections for.....	112	
Nature Study—Suggestive Outline.....	103	
For Study of Trees.....	106	
For Bird Study.....	108	
Official Call—County Superintendent's Conventions.....	74, 91	
Opinion of Attorney General—Concerning County School Tax.....	95	
President of the Board—Circular to the.....	95	
Recommendations of State Superintendent.....	14	
In General.....	14	
Summary of Recommendations.....	15	
Work of the County Superintendent.....	16	
Higher Education.....	16	
State Schools.....	17	
Private and Denominational Schools.....	17	
High Schools.....	18	

	Part I	Part II
Defining the School Year.....	19	
Large Versus Small District.....	20	
Independent City, Town and Village and Rural Corporations Compared	23	
Examination and Certification of Teachers.....	23	
Tax Levy for Transporting Children to and from School.....	27	
Heating, Lighting and Ventilating School Buildings.....	28	
A Worthy Example	28	
Accredited Schools for the Training of Teachers.....	29	
Reading Circle—Circular to County Superintendents.....	92	
Report of.....	100	
Reports of Secretary—Circulars Concerning the.....77, 78,	98	
To Treasurer.....	94	
To President Concerning Reports.....	95	
To Director of Sub-District.....77,	92	
Superintendents of Public Instruction.....	4	
Statistics—General Summary of	6, 12	
School Districts—Classes of Corporations—Number.....	6	
Large Verses Small—.....	20	
Schools—Number, Length of Year.....	6	
Teachers—Number Employed—Compensation ..	6	
Scholars—Enumeration, Enrollment, attendance.....	6	
Schoolhouses—Number—Value	7	
District Libraries—Number Volumes.....	7	
Shade Trees—Number Thrifty Trees... ..	7	
Temperance Instruction—Rooms in which taught.....	7	
Schoolhouse Fund—Receipts—Expenditures.....	7	
Contingent Fund—Receipts—Expenditures	8	
Teachers Fund—Receipts—Expenditures	8	
Examination of Teachers.....	9	
Visitation of Schools.....	9	
Appeals.....	9	
Compensation of County Superintendents.....	9	
Normal Institutes—Number, attendance	10	
Institute Fund.....	10	
Permanent School Fund.....	10	
Cost of Public Schools—Total.	10	
Computed on Taxable Property.....	11	
Computed on Population....	11	
Computed on School Enumeration.....	11	
Computed on Total Enrollment.....	11	
Computed on Average Attendance.....	11	
Tabular Exhibit from 1847 to 1905.....	12	
Independent City, Town and Village and Rural Corporations Compared	23	
Biennial Period—1904, 1905.....		1
Districts, Schools, Teachers, Pupils, Schoolhouses.....		5, 49, 53
Teachers' Fund.....		8, 57
Schoolhouse Fund.....		10, 12, 60, 62
Contingent Fund		11, 13, 61, 63
Examination of Teachers.....		14, 64
Visitations, Appeals, etc.....		18, 68
Summary of County Superintendents' Work.....		20, 70
Institutes, Attendance, Receipts, Expenditures.....		22, 72
Institute Faculties.....		26, 76
City Schools—3,000 or more population.....		30, 80
City Schools—1,500 to 3,000 population		31, 82
Graded Schools—Less than 1,500 population.....		32, 84
High Schools—1,000 or more population.....		47
Special Library Report.....		49, 94
Secretary—Circulars to the.....72, 86, 98		
Superintendents—County—Circular to....	81	
Names of—Term, etc.....		2

	Part I	Part II
Settlement with Secretary and Treasurer.....	93, 94, 95	
Special Days—Selections from Manuals for.....	98	
Summary of Report of Educational Board of Examiners.....	136	
School Corporations—Number—Classes.....	6	5, 49
Large Versus Small.....		20
Schools—Number—Length of Year.....	6	5, 49
Length of Year—Corporations Classified by:		96
Enrollment by Counties by Terms.....		98
Average Daily Attendance by Counties by Terms.....		102
Classified by Salaries Paid.....		108
Tenure of Teachers' Position.....		112
Tax Levy in Twenty Counties.		118
Problem of Country School—An Address.....		116
City and Town and Rural—Compared.....	23	
Consolidation of—Sentiment Concerning		127
Legal Status		128
Study of three Schools—Lake Township, Clay County....		130
Lloyd Township, Dickinson County.....		134
Buffalo Township, Winnebago County		137
Conclusions Concerning.....		139
Albion and Marathon Consolidated Schools.....		140
In Indiana		141
Tuition Pupils in Graded Schools.....		142
Education of the Farm Boy and Girl.....		5, 53; 148
City—3,000 or more population		80, 80
City—1,500 to 3,000 population.....		81, 82
Graded, less than 1,500 population.. ..		82, 84
High Schools—1,000 or more population.....		47
Accredited by State University—List of, ..		161
Private accredited by State University—List of....		161
Faculties—College Preparation, Degrees etc—Summary...		162
Suggestive courses of study.....		163
Course recommended by Ia. State Teachers Ass'n Dec. 29, '09		166
Experiment of Iowa State Normal Concerning Course.....		168
Exhibit of curriculum as used at Iowa State Normal.		174
List of—Four-year Course.....		176
List of—Three-Year Course.....		258
List of—Two-Year Course.....		290
Scholars—Enumeration, Enrollment, Attendance.	6	5, 49
Schoolhouses—Number—Value.....	7	5, 58
Condition of—New, etc.....		21, 71
With Flags.....		21, 71
School Year—Average Number of Months.....		5, 49
Corporations Classified by Length of		96
Salaries—of County Superintendents.....	9	18, 68
Of Teachers'—Average.....	6	5, 49
Of Teachers' Corporations, Classified by.....		108
Of Teachers in City and Town Schools.....		80, 80
School Buildings and Grounds		154
Treasurer—Circular to the.....	94	
Teachers—Number Employed—Average Compensation.....	6	5, 49
Examination of.....	9, 23	14, 64
The Licensing of.....	23	147
Average Age of.....		17, 67
Temperance Instruction—Rooms in which given.....	7	5, 58
Tuition and Non-Resident Attendance.....		5, 58, 149
Tenure of Teachers' Position.....		112
Tax Levy for School Purposes—Twenty Counties.....		113

TWELFTH BIENNIAL REPORT

OF THE

STATE MINE INSPECTORS

FOR THE

Two Years Ending June 30, 1905,

TO THE

GOVERNOR OF THE STATE OF IOWA.

PRINTED BY ORDER OF THE GENERAL ASSEMBLY

DES MOINES:
BERNARD MURPHY, STATE PRINTER.
1905.

STATE MINE INSPECTORS.

District No. 1. JOHN VERNER, Chariton.
District No. 2. JAMES A. CAMPBELL, Ottumwa.
District No. 3. EDWARD SWEENEY, Des Moines.

BOARD OF EXAMINERS.

FOR MINE INSPECTORS, MINE FOREMEN AND HOISTING
ENGINEERS.

H. BOOTH, *President*, Knoxville.
JOHN OWENS, *Secretary*, Beacon.
J. W. BAKER, *Treasurer*, Des Moines.
EDWARD GRAY, Des Moines.
JOHN CALDWELL, Seymour.

STATISTICS RELATING TO COAL MINING IN IOWA FOR THE TWO YEARS ENDING JUNE 30, 1905.

The steady annual increase in the coal production of the State, which commenced ten years ago, has been continued through the biennial period just closed and it can be said that the coal mining industry of Iowa, while by no means enjoying the high tide of prosperity, has been in fairly satisfactory condition in the recent past.

The increase in tonnage in the year just closed over the year ending June 30, 1904 was unusually high and amounted to nearly 600,000 tons. This gain, however, was not uniform in all parts of the State, in fact; there were heavy losses in some counties. Lucas county showed a loss of 74,000 tons last year; the reduction in the coal output of Keokuk county amounted to 34,000 tons, and Webster county's loss was 33,000 tons. On the other hand, Monroe, Polk, Mahaska, Boone and Marion counties made good gains, Monroe county leading in this respect with an increased production of more than 300,000 tons.

Of the twenty-three coal producing counties in the State, three counties, Monroe, Polk and Appanoose, produced more than three-fifths of last year's output. Eleven counties produced more than 100,000 tons each while the combined coal output of all the remaining twelve counties amounted to but little more than 160,000 tons.

The following tables give the coal producing counties of the State, the number of mines, the coal output and the number of men employed in and around the mines.

Number of mines in operation in each county, their coal output, number of miners and other employees for the year ending June 30, 1904.

Number of mines.	County.	Tons of coal of all grades produced.	Number of miners employed.	Number of other inside employees.	Number of outside employees.	Total number employed.	Number.
19	Monroe.....	1,808,975	2,249	862	418	3,529	1
27	Polk.....	986,172	1,547	500	280	2,327	2
82	Appanoose.....	895,759	2,465	547	360	3,372	3
14	Mahaska.....	580,428	872	226	150	1,248	4
18	Marion.....	846,629	581	144	81	806	5
16	Boone.....	845,472	789	169	112	1,070	6
12	Wapello.....	828,188	581	154	106	791	7
11	Jasper.....	802,599	477	170	62	709	8
8	Lucas.....	289,884	388	174	59	621	9
15	Webster.....	155,828	818	121	47	481	10
10	Wayne.....	45,424	275	70	42	387	11
8	Keokuk.....	52,875	80	28	19	127	12
12	Guthrie.....	29,858	187	11	16	164	13
6	Van Buren.....	17,844	38	5	15	58	14
4	Page.....	17,400	86	20	13	119	15
5	Dallas.....	16,586	49	19	8	76	16
5	Greene.....	15,898	62	11	7	80	17
18	Adams.....	15,185	110	9	15	134	18
6	Scott.....	14,983	54	23	6	82	19
7	Taylor.....	13,820	51	10	6	67	20
5	Warren.....	10,637	42	8	9	59	21
1	Jefferson.....	875	8	.....	1	4	22
1	Davis.....	125	4	4	1	9	23
800	Total.....	6,214,879	11,198	3,285	1,882	16,815	

Number of mines in operation in each county, their coal output, number of miners and other employees for the year ending June 30, 1905.

Number of mines.	County.	Tons of coal of all grades produced.	Number of miners employed.	Number of other inside employees.	Number of outside employees.	Total number employed.	Number.
20	Monroe.....	2,117,127	2,697	885	384	3,916	1
80	Polk.....	1,094,521	1,805	568	334	2,707	2
91	Appanoose.....	895,480	2,487	638	400	3,525	3
22	Mahaska.....	676,409	1,071	289	149	1,509	4
15	Boone.....	422,802	766	272	118	1,156	5
19	Marion.....	872,855	601	189	80	840	6
12	Wapello.....	868,029	665	149	108	919	7
12	Jasper.....	805,027	454	148	74	671	8
4	Lucas.....	165,256	805	154	59	518	9
11	Webster.....	122,056	233	95	39	367	10
10	Wayne.....	104,878	334	79	42	455	11
15	Guthrie.....	29,416	102	81	17	160	12
15	Adams.....	19,577	184	18	18	165	13
6	Keokuk.....	18,191	29	8	7	44	14
6	Greene.....	17,470	74	23	11	108	15
4	Page.....	17,166	79	13	9	101	16
9	Taylor.....	15,651	88	21	12	121	17
5	Dallas.....	13,599	43	17	10	70	18
6	Van Buren.....	12,648	24	5	15	44	19
5	Warren.....	9,483	48	11	9	68	20
4	Scott.....	5,210	38	14	6	58	21
2	Jefferson.....	2,050	9	1	2	12	22
8	Davis.....	1,115	11	6	4	21	23
26	Total.....	6,806,011	12,197	3,587	1,840	17,624	

STATE MINE INSPECTORS.

7

Number of mines in each district, their coal output, number of miners and other employes for the year ending June 30, 1904.

District.	Number of mines	Tons of coal of all grades produced.	Number of miners employed.	Number of other inside employes.	Number of outside employes.	Total number of employes.
Number 1.....	181	2,895,470	4,722	1,813	761	6,796
Number 2.....	72	1,972,523	3,049	948	534	4,530
Number 3.....	97	1,846,886	3,423	1,024	587	4,989
Total.....	350	6,714,879	11,194	3,785	1,882	16,861

Number of mines in each district, their coal output, number of miners and other employes for the year ending June 30, 1905.

District.	Number of mines	Tons of coal of all grades produced.	Number of miners employed.	Number of other inside employes.	Number of outside employes.	Total number of employes.
Number 1.....	146	2,847,890	5,010	1,463	777	7,250
Number 2.....	82	2,443,550	3,572	933	459	4,964
Number 3.....	98	2,010,101	3,615	1,161	604	5,390
Total.....	326	7,301,541	12,197	3,557	1,840	17,594

FATAL AND SERIOUS ACCIDENTS.

It is very gratifying that the two years just closed show a greater tonnage per life lost than any of the five preceding biennial periods; and what is better, a lower fatality rate per 1,000 employees. Last year's record in this respect is especially pleasing; 283,584 tons of coal were mined for each life lost, and the fatality rate per 1,000 employees reached the low mark of 1.4.

During the year ending June 30, 1904, thirty-one fatal and eighty-four serious accidents occurred in the mines of the State. Last year twenty-four fatal and one hundred serious accidents were reported.

A summary of these accidents, their causes, etc., will be found in the following tables:

Causes of fatal mine accidents in Iowa during the year ending June 30, 1904, and counties in which the accidents occurred.

Cause.	Appanoose.	Monroe.	Lucas.	Wayne.	Page.	Mahaska.	Keokuk.	Polk.	Webster.	Jasper.	Boone.	Total.
Falls of roof or coal	2	7	....	....	1	2	....	4	..	1	1	18
Material falling down shaft.	1	1	....	....	....	....	....	....	2
Explosion caused by shot	2	....	....	....	....	....	....	....	....	....	2
Overcome by damp	1	....	....	....	....	....	....	....	....	1
Crushed by cage	1	....	....	....	....	....	....	....	....	....	1
Flying coal from shot	1	....	....	....	....	....	1	....	1	....	3
Run over by cars	1	1	....	....	....	2
Falling from tower	1	....	....	....	....	....	1
Falling in sump	1	....	....	1
Total	2	11	1	1	2	3	1	6	1	2	1	31

Causes of serious mine accidents in Iowa during the year ending June 30, 1904, and counties in which the accidents occurred.

Cause.	Appanoose.	Monroe.	Lucas.	Mahaska.	Wapello.	Keokuk.	Marion.	Polk.	Jasper.	Boone.	Webster.	Scott.	Greene.	Total.
Falls of roof or coal	9	15	..	4	7	....	....	8	2	4	1	1	1	53
Injured by cars	2	5	5	....	....	....	....	2	2	....	....	....	....	16
Injured by cage .....	....	7	1	....	....	2	....	....	....	....	....	....	....	10
Miscellaneous	1	2	....	....	....	....	1	1	1	....	....	....	....	6
Total	12	29	6	4	7	2	1	11	5	4	1	1	1	84

Causes of fatal mine accidents in Iowa during the year ending June 30, 1905, and counties in which the accidents occurred.

Cause	Appanoose.	Monroe.	Lucas.	Wayne.	Marion.	Mahaska.	Polk.	Boone.	Greene.	Total.
Falls of roof or coal.	1	5	1	....	1	....	6	....	1	15
Falling down shaft.....	1	....	....	....	....	....	....	....	....	1
Crushed by cars.....	....	....	....	1	....	1	2	....	....	4
Crushed by cage....	....	....	....	....	1	....	....	1	....	2
Flying coal from shot.....	....	....	....	....	....	1	....	....	....	1
Powder explosion.....	....	....	....	....	....	....	1	....	....	1
Total.....	2	5	1	1	2	2	9	1	1	24

Causes of serious mine accidents in Iowa during the year ending June 30, 1905, and counties in which the accidents occurred.

Cause.	Appanoose.	Monroe.	Lucas.	Wayne.	Marion.	Mahaska.	Keokuk.	Wapello	Polk.	Jasper.	Boone.	Guthrie.	Total.
Falls of roof or coal.....	6	20	1	2	5	1	1	5	18	3	1	1	64
Cars.....	2	8	4	....	2	....	....	....	4	1	....	....	21
Material falling down shaft.....	1	....	....	....	....	....	....	....	1	....	....	....	2
Flying coal from shot.....	....	2	....	....	....	1	....	....	3	....	....	....	6
Burnt by powder ..	....	....	....	....	....	....	....	....	1	....	....	....	1
Miscellaneous.....	....	1	....	....	....	1	....	....	2	2	....	....	6
Total.....	9	31	5	2	7	3	1	5	29	6	1	1	100

Fatal and serious accidents in the mines of the State during the year ending June 30, 1904, with relation to coal produced and number of employes.

Districts.	Number of Accidents.		Number of Tons of Coal Produced.	Tons of Coal Produced for Each Accident.		Number of Em- ployes.	Number of Em- ployes for Each Accident.	
	Fatal	Serious.		Fatal.	Serious.		Fatal.	Serious.
District No. 1.	18	28	2, 395, 470	184, 267	85, 552	6, 796	523	243
District No. 2.	8	33	1, 972, 523	246, 565	59, 778	4, 530	566	137
District No. 3.	10	23	1, 846, 836	184, 639	80, 278	4, 989	499	217
Total... ..	36	84	6, 214, 829	614, 471	225, 608	16, 315	1, 588	597

Fatal and serious accidents in the mines of the State during the year ending June 30, 1905, with relation to coal produced and number of employees.

Districts.	Number of Accidents.		Number of Tons of Coal Produced.	Tons of Coal Produced for each Accident.		Number of Em-ployes.	Number of Em-ployes for each Accident.	
	Fatal.	Serious.		Fatal.	Serious.		Fatal.	Serious.
District No. 1.	7	33	2,347,800	334,837	78,855	7,250	1,069	238
District No. 2.	8	31	2,443,550	408,092	78,985	4,904	282	161
District No. 3.	11	37	2,010,101	182,736	54,827	5,890	469	144
Total ..	24	100	6,801,451	265,665	68,000	17,924	734	276

Table showing fatal mine accidents in Iowa for the last twelve years, their relation to coal tonnage and employees.

			tons of coal per accident.	Number of employees.	Fatality rate per 1000 em- ployes.
1894	19	2,777,895	198,810	10,358	1.7
1895	20	3,195,638	159,792	10,962	1.6
1896	22	3,525,490	160,254	11,451	2.
1897	21	3,799,734	190,464	11,678	1.8
1898	26	4,897,722	169,143	10,550	2.5
1899	20	4,949,310	247,466	11,029	1.8
1900	29	5,117,265	176,456	16,041	2.2
1901	27	5,441,863	201,550	16,175	2.
1902	55	5,514,206	100,258	18,002	4.2
1903	21	6,135,734	294,539	13,192	1.6
1904	31	6,214,379	200,464	16,515	1.9
1905	24	6,801,451	265,664	17,624	1.4

BIENNIAL REPORT OF THE FIRST DISTRICT

COUNTIES COMPRISING THE DISTRICT:

APPANOOSE,	MONROE (part),
LUCAS,	WAYNE,
TAYLOR,	PAGE,
ADAMS.	

JOHN VERNER, INSPECTOR.
CHARITON, IOWA.

LETTER OF TRANSMITTAL.

HON. ALBERT B. CUMMINS, Governor of Iowa.

Sir,—I have the honor to submit to you herewith the report of the First Inspection District, covering the biennial period ending June 30, 1905.

Very respectfully,

JOHN VERNER,

Inspector First District.

REPORT OF FIRST DISTRICT.

The law of this State provides that the mine inspectors shall meet in their general office in the Capitol biennially on or before August fifteenth preceding the regular session of the general assembly, and make report to the Governor of their official doings, including therein all matters which are especially committed to their charge, etc. To make this report as the law requires, the operators must be called upon for needed information, and it is essential that such information is furnished promptly.

The majority of the coal operators in this district have given this information with commendable promptness, while the considerable minority had to be urged repeatedly before a response could be had. Ninety-three per cent of the blanks sent out were filled out and returned to this office. Reports were received from every mine in Monroe, Lucas and Page county, while two small shipping mines, in Appanoose county, and four local mines in different parts of the district failed to report.

There are no objectionable features about this report and it requires less time to make it than must be given to reports furnished the inspectors in other mining states. It only relates to coal production, number of miners and others employed, number of days the mine worked and a statement of accidents, if any, and I know, from personal observation, that in any rightly regulated mine office the data for any one mine can be compiled in fifteen minutes.

We have no law requiring the operator to make a report to the mine inspector. Nearly all the other mining states have laws, more or less strict and explicit, covering this matter. The Pennsylvania law provides for yearly reports to be made on or before the twenty-fifth day of January and covering the year preceding. The report shall be in such form and give such information regarding a mine as may from time to time be required and prescribed by the inspector of the district. The Kansas law provides for quarterly statements to the mine inspector, not later than ten days after the end of each quarter. The report shall state amount of coal mined, number of miners employed, number of daymen, number of boys, number of days worked, accidents, serious and fatal, and wages paid. The Missouri law prescribes what information must be furnished and provides that the report must be made by the twentieth day of January for the preceding year. Failure to make the report is punishable by a fine of from one hundred to three hundred dollars.

It is very probable that the Iowa legislature, after prescribing that the mine inspector shall make a report to the Governor, will provide the means necessary to facilitate the making of such report, but compulsory legislation

on this point should not be necessary and will not be needed if the operators, who were either slow in making the report or failed to report, will realize that it is preferable to comply with a fair and reasonable request voluntarily, than to be compelled to do so by law.

During the biennial period just closed 493 inspections of the mines in this district were made and twenty-eight scales were tested, and I can say that nearly all the operators have tried to maintain the mines and their equipments in satisfactory condition and that in most cases they have been successful in their efforts.

Nothing occurred in the last two years to disturb the friendly relations existing between the miners and operators. In April, 1904, the miners were idle for a few weeks, but as soon as the wage scale, to prevail until April 1, 1906, was agreed to, work was resumed.

During the biennial period ending June 30, 1903, the mines of the district, as now constituted, produced 4,232,253 tons of coal; during the biennial period just closed the coal production amounted to 4,742,830 tons, showing a gain of 510,577 tons in the last two years. During the year ending June 30, 1904, 2,395,470 tons were mined, and last year's output was 2,347,360 tons.

The following tables give in compact form the number of mines in the counties comprising the district, their coal output and the number of persons employed in the coal industry.

Number of mines in operation in each county, their coal output, number of miners and other employes in District No. 1, for the year ending June 30, 1904.

County.	Number of mines.	Tons of coal of all grades produced.	Number of miners.	Number of other inside employes.	Number of outside employes.	Total number employed.
Appanoose	82	895,759	2,465	547	390	3,572
Monroe (part).....	12	1,118,548	1,847	488	268	2,993
Lucas.....	8	289,384	888	174	59	1,121
Wayne.....	10	95,424	275	70	42	387
Taylor.....	7	18,820	51	10	6	67
Page.....	4	17,400	86	20	18	119
Adams	18	15,185	110	9	15	134
Total.....	181	2,395,470	4,722	1,818	761	6,796
Mines in District No. 1 connected with railroads	74	2,275,619	4,267	1,249	665	6,173
Mines local or without railroad connections.....	57	119,851	455	78	96	624
Total.....	131	2,395,470	4,722	1,818	761	6,796

Number of mines in operation in each county, their coal output, number of miners and other employes in district No. 1, for the year ending June 30, 1905.

County.	Number of mines.	Tons of coal of all grades produced.	Number of miners.	Number of other inside employes.	Number of out- side employes.	Total number employed.
Appanoose.....	91	895,480	2,487	683	400	3,520
Monroe (part).....	13	1,129,857	1,583	550	237	2,370
Lucas.....	4	165,258	805	154	59	518
Wayne.....	10	104,873	884	79	42	455
Taylor.....	9	15,651	88	21	12	121
Page.....	4	17,166	79	18	9	101
Adams.....	15	19,577	184	18	18	165
Total.....	146	2,847,860	5,010	1,468	777	7,250
Mines in district No. 1 connected with railroads	80	2,223,022	4,472	1,367	678	6,517
Mines local or without railroad connec- tions	66	124,838	538	96	99	783
Total.....	146	2,847,860	5,010	1,468	777	7,250

GENERAL CONDITIONS OF THE MINES IN THE FIRST DISTRICT.

In all the new mines opened during the last two years and in many of the older ones, a decided improvement in the system of working them is apparent. This has been made especially manifest in the last year, for while the working time of the mines during the year ending June 30th last was generally considerably less than in recent preceding years, there was but little decrease in the coal output of the district. It is a well known fact that the mining of coal in Iowa very often must be carried on under difficult conditions, such as do not exist in Illinois and the great mining states of the East and South. There the operator may determine even before he opens his mine how its workings shall be arranged and how future development shall be made and nature seldom interferes to prevent the carrying out of his plans. The Iowa mine operator may also have well-considered plans for the opening and working of his mine, but in trying to put his plans into practice he will very likely meet conditions that will completely upset them and force him to rearrange his work to suit these conditions and overcome the difficulties before him as well as he may. That improvements in mining methods under such circumstances can not be easily obtained is readily understood, and that appreciable advance has been made in that direction shows that the progressive and enterprising Iowa mine operator is making the best of his opportunities. Greater care is now shown to avoid the penalty that is exacted from every operator who strives for the largest immediate returns possible, without due consideration and preparation for meeting the future needs of the mine. Mine haulage has been improved, shaft bottoms have been arranged to permit the easier and more rapid handling and caging of coal and improvements on top have kept pace with those made below.

The hoisting machinery at the mines was generally found to be in satisfactory and safe condition. In a few cases I found that hoisting ropes, showing visible signs of injury to the wires, had been permitted to remain in use. The fact that the safety devices were in good working order and would prevent injury to persons conveyed through the shaft, should the rope break, does not warrant the use of defective ropes. Every part of the hoisting apparatus should be kept at all times in the best possible condition, and it is not good mine management to have it otherwise.

In a number of the larger mines using mechanical haulage, separate and convenient traveling roads have been provided and considerable money has been spent to put them in available condition. It may not be practical to provide such separate traveling roads in all mines using mechanical haulage, but if this can not be done, and the haulage roads must be used for travel, there should be adequate safeguards provided to protect the

workmen from injury by the moving cars. Fortunately during the last two years no miner or other underground employe has been injured while going to or from his place of work. This is a pleasing fact, but is not proof that the traveling roads are now about as safe as they can be made and that further efforts to increase the safety of underground travel are not needed.

The escape shafts have been kept in fairly available condition, but in some of the drift and slope mines of Appanoose county the escape roads were found to be badly kept. Improvements have been made, however, and will continue, until all these roads are put in such condition as the law prescribes.

Mine stables are now better located and safer than ever before. Stables have been removed from out of the way places to locations where constant supervision is possible, the danger from fire occurring in them has been lessened, and should one occur, means have been provided to subdue it in its incipency and prevent the smoke reaching the men at work in the mine.

An unusual amount of outside mine property was destroyed by fire during the last two years. On August 19, 1903, the tipple, engine-room, boiler house and blacksmith shop of No. 3 mine of the Centerville Block Coal Company burned down. On August 29th of the same year, the engine-house and part of the trestlework belonging to the Egypt Coal Company was destroyed. The top works of the Star mine in Centerville burned December 11, 1904. On January 7, 1905, the engine and boiler-house of No. 2 mine of the Exline Coal Company was destroyed. The Wapello Coal Company lost the engine and boiler-house of mine No. 4 on January 25, 1905, and on February 4th the top works of mine No. 1 of the Hocking Valley Coal Company burned down. No lives were placed in danger at any time on account of these fires, and operation of all these mines was resumed as soon as the buildings were replaced.

The work done and the improvements made in the last two years to render the mines safe and furnish fair sanitary conditions to the mine workers have been of considerable scope. I am pleased to state that a large amount of this work was done without any urging on my part, and in a few instances only did some operator or mine official show neglect or unwillingness to comply with my request to put and maintain his mine in fairly satisfactory condition.

MINE VENTILATION.

The expectation expressed in my last report that a material improvement in the ventilation of the mines of this district would likely come about in the biennial period just closed, has been realized to a gratifying extent. It is true, there are mines in this district at this time that are not satisfactorily ventilated, but their number is considerably less than it was two years ago and will be still further reduced as rapidly as circumstances will permit. The reason that in the latter cases better progress was not made, was due to the fact that the mines either had not been properly opened and arranged for future needs, or that natural drawbacks and difficulties existed, or that neglect and incompetency in the past on the part of the mine management made the obtaining of immediate satisfactory results very difficult, if not impossible.

It is evident that the operators realize more than ever before the importance of good mine ventilation and the benefits derived from it. Generally they have shown an earnest desire to improve their mines in this respect, and, in some instances, by the use of up-to-date methods, they have succeeded remarkably well.

All the mines in Monroe county (thirteen), belonging in this district, have fan-ventilation. In Appanoose county thirty mines are ventilated by fans, in Lucas county three, and in Wayne county two. The increase in the number of fans in use during the last two years over the number in use during the preceding biennial period, was seven. Nineteen mines (eighteen of them in Appanoose county), with an individual yearly production ranging from 5,000 to 30,000 tons of coal, were ventilated by furnaces. Nearly all the remaining small mines use furnaces, while some of the rather unimportant country mines, working only in the winter season, depend on natural ventilation.

All the new shipping mines, recently opened in this district, have been provided with air shafts of fair dimensions, fans have been or will be erected on them, and the underground workings have been so arranged with regard to future requirements that, with ordinary care and attention, satisfactory ventilation can be had in these mines for years to come.

SCALES.

The mine scales in the district have been kept in fair weighing condition, and if the decreasing number of tests called for is any criterion there has been material improvement in this respect. In the first fifteen months of my work in this district, I tested twenty-three scales, in the year ending June 30, 1904, sixteen, and during last year, twelve. Of the twenty-eight scales tested in the last two years, twenty were found correct and eight required adjustment.

SHOT EXAMINERS AND THEIR WORK.

In my judgment, the shot examiners employed in this district are competent men, a number of them having served with marked efficiency ever since the shot examination law took effect and the record shows that they have done good work. In one or two mines changes in the examining force have been rather too frequent. This frequent change should be avoided, if possible, for it is undoubtedly a correct proposition that the longer a shot examiner of fair ability stays in service, the more reliable will be his judgment and the more competent he will become.

The shot examination law has been in force now for more than three years. In the two years preceding the taking effect of the law, attempts had been made to do the blasting with greater safety and shotfirers were employed in some of the mines in this district. Little attention, however, was given to the examination of shots prior to firing them, and during these two years five explosions occurred in the mines employing shotfirers. Six shotfirers lost their lives in these explosions and two were rescued just in time to save them. In the three years following the enactment of the law, with more thorough examination and better safeguards provided, one explosion occurred, resulting in the loss of two lives.

The benefits of the law have been clearly established in Iowa, and its merits have been recognized in other mining states.

FATAL AND SERIOUS ACCIDENTS.

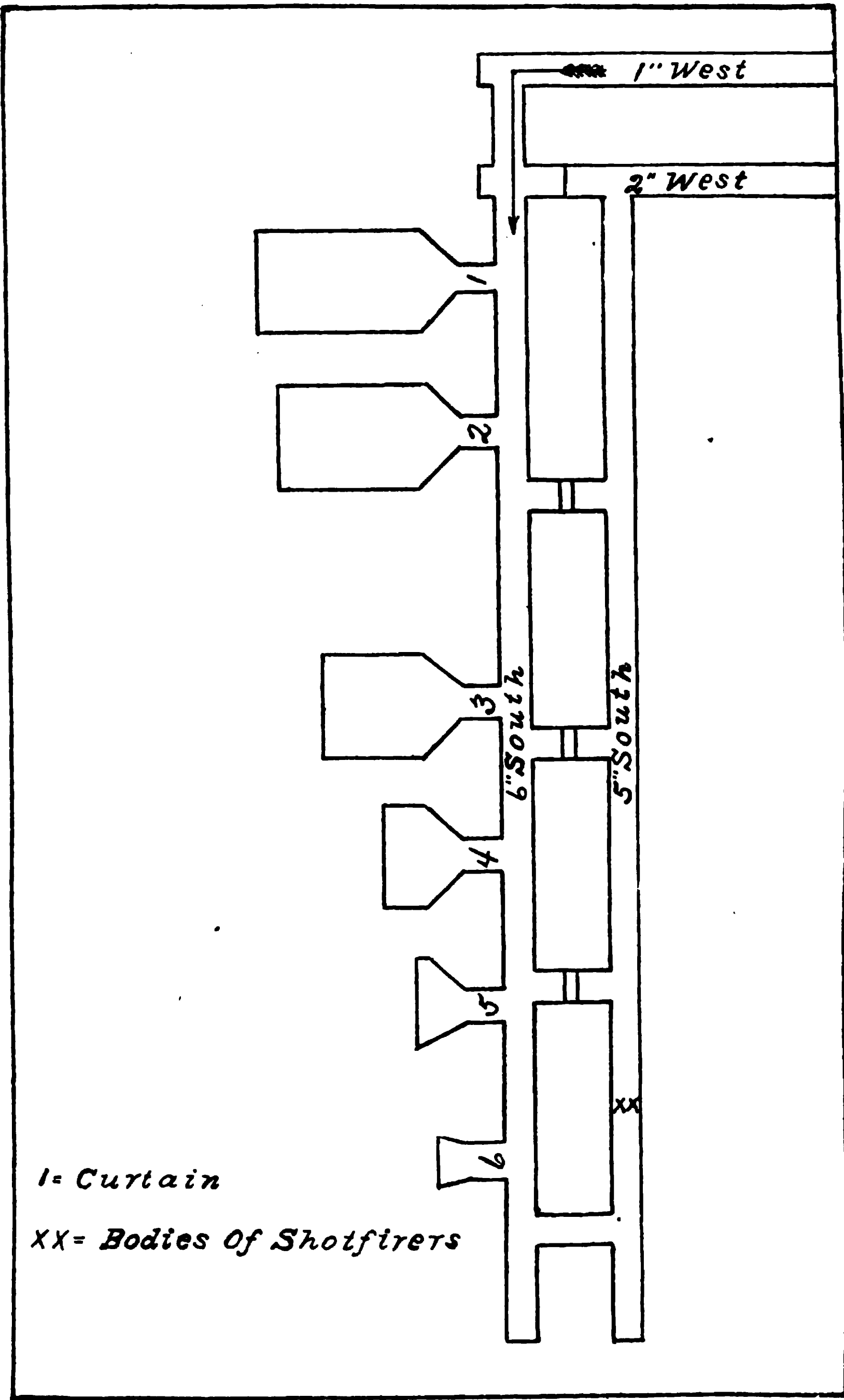
During the year ending June 30, 1904, thirteen fatal and twenty-eight serious accidents occurred in and about the mines of this district. Of the thirteen men killed, seven lost their lives by falls of roof or coal, two were killed by timber or rock falling down the shaft, two by an explosion, one was overcome by damp and one was crushed by a cage. Fifteen of the serious accidents were due to falls of roof or coal, ten persons were injured by cars on the haulage roads, one was caught in a flywheel, one was injured by a cage and one lost an eye through a chip from a steel wedge entering it.

In the last year seven fatal and thirty-two serious accidents were reported. Five of the fatal accidents occurred at the working face and were due to falls of roof or coal, one man was killed by falling down a shaft and one was fatally injured by being crushed between a car and timber on top of the shaft of the Big Jim mine. Twenty-one of the serious accidents were caused by falls of roof or coal, ten persons were injured on the haulage roads and one was injured while descending on the cage by being struck by a part of a safety gate.

In the year ending June 30, 1904, the fatal accident rate per 1,000 employees was 1.9. Last year it was .96.

It seems to be unnecessary to review in detail all of the above accidents, but believing that all available information regarding explosions occurring in this State should be presented, in order that such information may be of some assistance to suggest means to prevent them in the future, I give the results of my investigation of the explosion which occurred on January 25, 1904, in mine No. 6, of the Phillips Fuel Co.

Two lives were lost in this explosion. A. Carlson, the shot examiner and shotfirer, and his assistant, J. W. Stevens, were the victims. Their dead bodies were found on the fifth south entry (see sketch). There is no doubt about the explosion's starting point. It originated in room 6 on the sixth south entry and its occurrence, in my judgment, was largely due to the fact that the shot examiner apparently only considered the shots prepared in the sixth south entry separately as to their safety and failed to recognize the danger that existed in the injudicious manner of firing the shots located in a part of the mine extremely limited in space. The shot which caused the explosion, considered by itself, would probably have been accepted as reasonably safe by any other shot examiner in the district, and, in my judgment, fired by itself, although containing too much powder for the work done, would not have caused any harm. I believe it was a combination of dangerous conditions existing in and about room 6 when this shot was fired, that made the explosion possible and it was a failure on the part of the shotfirers to notice the existence of these threatening conditions that cost them their lives.



1= Curtain

XX= Bodies Of Shotfirers

The ventilation in the fifth and sixth south entries was generally good, but as at the request of the shotfirers the fan was stopped when the miners were leaving the mine, there was little, if any, air movement at firing time. It was found that no rooms had been turned on the fifth south entry and that rooms 1 and 2 on the sixth south entry were not working, that shots had been prepared and fired in rooms 3, 4, 5 and 6 and in the sixth south entry and that one shot had been prepared and left unfired in the fifth south entry. It was also established that two shots were fired in room 6. The shotfirers evidently commenced lighting the shots in room 3, and proceeding southward they probably touched off the fuses of the shots in room 6 and the entry at the same time, retiring through the last crosscut to the fifth south entry.

That the explosion originated in room 6 was shown by the fact that, while the loose coal at the mouth of room 5 and the coal thrown by the entry shot was covered with soot and dust, room 6 and its immediate vicinity presented a clean appearance as if it had been swept with a broom. The explosion's force was comparatively small and very little coked dust was found and that only in the immediate vicinity of room 6.

It is, of course, impossible to establish the exact co-relation of forces that brought on the explosion. As it is customary to so regulate the length of fuses, when more than one shot is fired in a place, that the shots may not explode at the same time, it is not probable that the two shots in room 6 exploded together. I believe the shot fired in the sixth south entry was the main factor contributing to the explosion's origin. It was proved that this shot exploded prior to the shot in room 6, the difference in time being very slight and may not have exceeded the fractional part of a second. That being the case, we have this situation: The pressure from the entry shot momentarily retards the dissipation of the heated gases coming from the shot in room 6, their heat is increased and intensified in consequence, additional and ready fuel is provided by the dust swept out of the face of the entry past the mouth of room 6, and the explosion is the result.

The explosion could have been prevented; at any rate there should have been no loss of life. The shotfirers erred in considering the fifth south entry a safe retreat. In close workings shotfirers should never remain on the entry while the shots are being fired close by; it means certain death should any of these shots cause even a slight explosion. They erred also in the manner of lighting the shots; they should have fired the entry shots first, commencing on the fifth south entry. They should have waited until these shots had done their work and then fired the room shots in the sixth south entry, starting in room 6. Their place of retreat should have been room 1 on the sixth south entry.

Fatal accidents in District No. 1, July 1, 1903—June 0, 1904.

Date.	Name of Deceased	Occupation.	Cause of Death.	Employed by—	County.
September 12, 1903	D. Jenkins	Timberman	.....	Wapello Coal Co.	Monroe.
December 2, 1903	L. Maley	Miner	.....	G. Howard	Page.
December 8, 1903	P. Stancovich	Miner	.....	Hocking Coal Co.	Monroe.
January 1, 1904	C. Villars	Miner	shaft	Johnston & Co.	Page.
January 16, 1904	Wm. Webster	Miner	.....	Hocking Valley Coal Co.	Appanoose.
January 20, 1904	P. E. Carlson	Miner	.....	Hocking Coal Co.	Monroe.
January 25, 1904	J. W. Stevens	Shotfirer	.....	Phillips Fuel Co.	Monroe.
January 25, 1904	.....	Shotfirer	.....	Phillips Fuel Co.	Monroe.
January 26, 1904	.....	Miner	.....	Peerless Coal Co.	Appanoose.
January 28, 1904	.....	Miner	crossing shaft	Namus Block Coal Co.	Wayne.
February 20, 1904	.....	Miner	.....	Big Hill Coal Co.	Lucas.
March 21, 1904	W. H. Mitchell	Miner	.....	Wapello Coal Co.	Monroe.
May 23, 1904	S. Vedo	Miner	.....	Wapello Coal Co.	Monroe.
June 30, 1904	.....	Miner	Fall of slate.	Smoky Hollow Coal Co.	Monroe.

Serious accidents in District No. 1, July 1, 1903—June 30, 1904.

STATE MINE INSPECTORS.

25

Date.	Name of Injured.	Occupation.	Character of Injury.	Cause of Injury.	Employed by—	County.
July 9, 1903	Ed Brock.	Driver	Leg broken	Caught between cars.	Monroe.	Monroe.
July 19, 1903		Driver	Leg broken	Run over by car.	Lucas.	Lucas.
August 22, 1903		Miner	Leg broken	Fall of slate	Appanoose	Appanoose
September 9, 1903		Driver	Leg broken	Thrown from car	Lucas.	Lucas.
September 10, 1903		Driver	Leg broken	Kicked by mule	Monroe.	Monroe.
September 12, 1903		Driver	Leg broken	Struck by flywheel.	Appanoose	Appanoose
September 19, 1903	Wm. Holland	Engineer	Leg broken	Fall of coal	Appanoose	Appanoose
October 4, 1903	A. Nelson	Miner	Leg broken	Mule ran away	Appanoose	Appanoose
October 21, 1903	Jas. Burt, Jr.	Driver	Leg broken	Fall of slate	Appanoose	Appanoose
November 11, 1903	R. Snodgrass	Miner	Leg broken	Fall of coal	Monroe.	Monroe.
November 14, 1903	F. Bond	Miner	Leg broken	Fall of coal	Appanoose	Appanoose
November 16, 1903	M. Wranish	Miner	Arm broken	Fall of coal	Appanoose	Appanoose
November 19, 1903	R. Zimmerman	Miner	Leg broken	Fall of slate	Monroe.	Monroe.
December 12, 1903	T. Brennan	Teamster	Leg broken	Caught by cage	Lucas.	Lucas.
December 24, 1903	H. Miles	Trapper		Run over by car.	Lucas.	Lucas.
January 12, 1904	O. Grenco	Miner		Fall of coal	Appanoose	Appanoose
January 20, 1904	J. O. Neachem	Driver			Lucas.	Lucas.
January 27, 1904	F. Quilliane	Laborer		Fall of slate	Monroe.	Monroe.
February 9, 1904	F. Hines	Miner		Fall of slate	Monroe.	Monroe.
February 9, 1904	Wm. Hall	Miner		Caught between cars.	Appanoose	Appanoose
February 20, 1904	C. Babbitt	Driver		Fall of coal	Appanoose	Appanoose
March 1, 1904	J. Henley	Miner		Fall of slate	Appanoose	Appanoose
March 2, 1904	Jas. Dawson	Miner		Fall of coal	Appanoose	Appanoose
March 12, 1904	W. Biltzman	Miner		Fall of coal	Monroe.	Monroe.
March 16, 1904	F. Hand	Pit boss		Fall of coal	Appanoose	Appanoose
March 21, 1904	J. Bazzaco	Miner		Struck by piece of steel from wedge.	Monroe.	Monroe.
May 2, 1904	P. Jackson	Driver	Finger cut off	Car jumped track	Monroe.	Monroe.
June 11, 1904	J. Milos	Miner	Ribs broken	Fall of coal	Appanoose	Appanoose
June 26, 1904	C. Phillips	Coupler	Leg broken	Caught between cars.	Lucas.	Lucas.

Fatal accidents in District No. 1. July 1, 1904--June 30, 1905.

Date.	Name of Deceased.	Occupation.	Cause of Death.	Employed by--	County.
October 21, 1904	F. Felinski.	Miner.....	Fall of coal.....	Orr Bros.....	Appanoose.
January 6, 1905	Ed. Green.	Top boss.	Crushed by car.....	Numa Block Coal Co..	Wayle.
February 2, 1905	P. Gallo	Miner.....	Fell down shaft.....	Hig Jo Coal Co	Appanoose.
March 23, 1905	Thos. Davis.....	Miner.....	Fall of slate.....	Phillips Fuel Co.....	Monroe.
May 19, 1905	Thos. Dwyer	.....	Fall of slate.....	Wapello Coal Co.....	Monroe.
June 20, 1905	C. F. Carter.	Miner.....	Fall of slate.....	Whitebreast Fuel Co	Lucas.
June 20, 1905	L. Jones	Miner.....	Skull broken by post ..	Hocking Coal Co	Monroe.

Serious accidents in District No. 1, July 1, 1904—June 30, 1905.

STATE MINE INSPECTORS.

27

Date.	Name of Injured.	Occupation.	Character of Injury.	Cause of Injury.	Employed by—	County.
July 31, 1904	J. Sonoras	Miner	Back dislocated.	Fall of slate.	Hocking Coal Co.	Monroe.
July 30, 1904	H. Kephart	Miner	Heel and hips hurt.	Fall of slate.	Smoky Hollow C. Co.	Monroe.
August 20, 1904	J. Fargo	Miner	Leg broken	Fall of slate.	Smoky Hollow C. Co.	Monroe.
August 24, 1904	O. E. Starkey	Miner	Ankle broken	Fall of slate.	Smoky Hollow C. Co.	Monroe.
August 26, 1904	A. Kieck	Miner	Leg broken	Fall of slate.	Smoky Hollow C. Co.	Monroe.
November 12, 1904	— Waldeen	Driver	Ankle broken.	Run over by car.	White-breast Fuel Co.	Lucas.
November 14, 1904	J. B. Williams	Miner	Contraction of leg muscles.	Fall of coal.	Hocking Coal Co.	Monroe.
November 16, 1904	E. Houston	Driver	Dislocation of spine.	Run over by car.		Appanoose
November 22, 1904	F. McVetty	Trapper	Leg crushed.	Run over by car.		Appanoose
December 1, 1904	J. Moyle, Jr.	Miner	Leg broken	Fall of slate.		Monroe.
December 25, 1904	J. Maseeley	Driver	Leg broken	Run over by car.		Lucas.
December 29, 1904	A. Roberts	Laborer	Leg broken	Fall of rock.		Wayne.
December 31, 1904	T. C. Mongar	Miner	Spine dislocated.	Fall of slate.		Lucas.
January 2, 1905	N. Weeks	Miner	Ankle broken	Fall of coal.		Appanoose
January 15, 1905	S. Bragg	Miner	Arm and legs bruised.	Fall of coal.		Wayne.
January 18, 1905	H. Biltzman, Jr.	Driver	Leg broken	Struck by car.		Monroe.
January 18, 1905	C. Grenko	Miner	Leg broken	Fall of coal.		Appanoose
January 16, 1905	J. Rajick	Miner	Hips crushed.	Fall of rock.		Monroe.
January 20, 1905	D. Nelson	Miner		Fall of slate.		Appanoose
February 1, 1905	D. Wright	Miner		Struck in shaft.		Appanoose
February 4, 1905	R. Greathouse	Miner		Fall of slate.		Appanoose
February 10, 1905	A. Parker	Laborer		Struck by car.		Monroe.
February 20, 1905	C. Nattig	Miner		Fall of coal.		Appanoose
February 26, 1905	W. Milligan	Driver		Squeezed by mule.		Appanoose
February 25, 1905	J. Coop	Top laborer.		Struck by car.		Monroe.
February 27, 1905	J. Specks	Miner		Fall of coal.		Appanoose
February 30, 1905	J. Wester	Laborer		Fall of slate.		Appanoose
April 24, 1905	Wm Brown	Timberman.	as broken.	Fall of slate.		Monroe.
June 5, 1905	Wm Bates	Miner		Fall of bat		Monroe.
June 10, 1905	M. Eaves	Miner		Fall of slate.		Appanoose
June 24, 1905	T. D. Evans	Driver	Hand broken	Caught by car.		Monroe.
June 29, 1905	D. Harvey	Driver	Foot crushed.	Caught between cars.		Lucas.

Fatal and serious accidents in District No. 1, July 1, 1903, to June 30, 1904, with relation to coal produced and number of employees.

County.	Number of Accidents.		Number of Tons of Coal Produced.	Tons of Coal Produced for Each Accident.		Number of Employees.	Number of Employees for Each Accident.	
	Fatal.	Serious.		Fatal.	Serious.		Fatal.	Serious.
Appanoose	2	12	895,759	447,879	74,646	8,872	1,686	297
Monroe (part) ..	7	10	1,118,548	159,792	111,854	2,096	299	309
Lucas	1	6	289,884	289,884	89,897	621	621	108
Wayne	1	.....	95,424	95,424	.....	887	887	.....
Taylor .....	.....	.....	18,820	.....	.....	67	.....	.....
Page	2	.....	17,400	8,700	.....	119	59	.....
Adams .....	.....	.....	15,185	.....	.....	184	.....	.....
Total	18	28	2,895,470	184,267	85,552	6,796	528	248

Fatal and serious accidents in District No. 1, July 1, 1904, to June 30, 1905, with relation to coal produced and number of employees.

County.	Number of Accidents.		Number of Tons of Coal Produced.	Tons of Coal Produced for each Accident.		Number of Employees.	Number of Employees for each Accident.	
	Fatal.	Serious.		Fatal.	Serious.		Fatal.	Serious.
Appanoose	2	9	895,480	447,740	99,498	8,530	1,760	391
Monroe (part) ..	8	16	1,129,857	876,452	70,535	2,870	790	148
Lucas	1	5	165,256	165,256	83,051	518	518	164
Wayne	1	2	104,878	104,878	52,436	455	455	297
Taylor .....	.....	.....	15,651	.....	.....	121	.....	.....
Page .....	.....	.....	17,166	.....	.....	101	.....	.....
Adams .....	.....	.....	19,577	.....	.....	165	.....	.....
Total	7	32	2,847,860	833,837	78,855	7,250	1,086	226

THE NEED OF NATIONAL ASSISTANCE IN THE PREVENTION OF MINE ACCIDENTS.

About thirty-five years ago the first steps were taken in Pennsylvania to bring its anthracite mines under State supervision. Since that time all the principal coal producing states have adopted laws regulating the operation of coal mines within their borders, with the view of securing an increased measure of safety for the persons employed therein, and officials have been provided by these states to see that the requirements of these laws are complied with. Under State supervision the sanitary condition of the mines has been much improved, appliances and devices affording the miner greater safety and facility in entering or leaving the underground workings, are in evidence everywhere, efforts have been and are being made by the different State governments to give reasonable protection to the miner, while at work, yet, notwithstanding all this, the yearly death rate due to accidents in the coal mines of the United States remains alarmingly high, and judging from the evidence of recent events, there seems to be little hope, under the present order of things, that the future will show any appreciable reduction in this respect.

It appears that this state of affairs can only be accounted for in two ways: there is either a lack of knowledge as to what is required to make the mines more safe, or, such knowledge existing, willful and criminal negligence must be the cause. That some mine accidents have been due to neglect, and that in a very few instances this neglect may have been almost criminal, is probably true, but there is absolutely no foundation to sustain the charge that the high rate of mine fatalities in the United States in recent years has been due to widespread and universal neglect to provide adequate means for their prevention. There is no reason for believing that the mine operator in America is less humane than the mine operator in England or Germany, or that he feels less concern for the welfare and safety of the persons in his employ, and the only conclusion that presents itself is that it is not neglect but lack of sufficient knowledge of the hidden dangers of the mines that stands out as the obstacle that must be overcome before there can be hope for an appreciable reduction in the number of mine accidents in the United States. It is a true proposition that in order to overcome danger successfully, its existence, cause and nature must be well understood.

One of the principal causes of the high fatality rate in the mines of the United States has been due to the alarming frequency of disastrous explosions in mines containing little or no firedamp. After the occurrence of one of these so-called dust explosions the charge is often made and generally accepted as true, that the explosion was caused by carelessness, negligence or disregard of mining laws and mine rules. The truth is, that possible negligence, carelessness, etc., were only contributory factors and that the main cause, the principal factor that made it possible for such explosions to follow each other in rapid succession from Utah to Pennsylvania and from Iowa to Alabama, was inability to recognize and understand the existence of the danger.

It was not neglect of any kind, it was lack of information and knowledge regarding these explosions that caused the loss of two hundred lives in the mines at Scofield, Utah. The miners going to their work on the morning of May 1, 1900, were apparently confident that the mine they were entering was as safe as any mine in the United States; they, no doubt, believed that, with the exercise of ordinary care and watchfulness in doing their work at the face, no serious mishap would befall them, the mine officials believed that everything was all right, yet a few hours later the mine was wrecked and two hundred lives were lost. The surviving miners and the mine officials could not understand it, they could not account for this great calamity. Mining had been carried on in that locality for a number of years, with only the ordinary loss of life incident to mining, mine No. 4, where the explosion originated was in good condition, well ventilated and the requirements of the mining law had been fully complied with. Men with extensive experience in mines and mining, who worked in this mine, testified that it was free from gas, that they never thought of the possibility of an explosion and that they considered the mine perfectly safe. Why were these men and mine officials ignorant of the dangerous condition of the mine, why did they feel so secure, when a long record of explosions in other mines in different parts of the country, apparently as safe as this one, should have impressed upon them the need of caution and sufficient investigation to ascertain whether or not their mine really was as safe as they believed it to be? Why did they not profit by the lessons of disaster presented in other states? Presumably it was for the same reason that prevented Iowa, Tennessee, West Virginia, Alabama and other mining states from deriving any benefit from the lesson taught by the great calamity of Scofield, Utah. The opportunity to secure this benefit was lacking.

The good results coming from the centralizing of efforts to lessen the hazard to life incident to mining are readily recognizable in England, Germany and other coal producing countries of Europe, and it is a matter of regret that so far no efforts have been made in the United States to profit by their example. If these explosions are to be averted in the future, as I believe they can be, and a general safer condition of the mines brought about, it must be done through the assistance of the National Government and by the creation of a National bureau of mine accidents. The scope of such bureau should include the furnishing of statistics relating to mine accidents occurring in the United States, the investigation of all accidents through which a number of lives were lost, the special investigation of every explosion, the making of tests and experiments and the providing of useful information and advice. This bureau should be a central source of education and information, of such reliability and trustworthiness, that its teachings and advice will be readily accepted and followed by the mining interests and governments of every mining State and Territory in the Union. The United States, producing nearly two-fifths of the world's annual coal supply, with its widely spread coal fields with their diverse conditions and mining methods, with inspection service in every mining State, affords unequalled opportunities for successful work by the government experts, with the almost sure promise that results will be entirely satisfactory to all.

The plea that the individual mining states can deal with this question successfully, is no longer tenable. The proof to the contrary is too overwhelming. Individual efforts are too uncertain and often futile, there must be co-operation to get results and get them quickly, and such co-operation can only be carried on successfully with the help of the National Government. For humane as well as economic reasons the question of the creation of a National bureau of mine accidents should receive the early and favorable consideration of Congress.

APPANOOSE COUNTY.

Last year ninety-one mines were operated in Appanoose county. Sixty-two of these mines are connected with the railroads running through the county. Twenty-six mines are connected with the Chicago, Milwaukee & Saint Paul railroad, twenty-five with the Burlington, two with the Iowa Central and nine with the Chicago, Rock Island & Pacific. The remaining twenty-nine mines have no railroad connections and are generally operated in a small way to supply home demand, although a few of them ship part of their output.

The majority of the mines were operated a less number of days last year than the preceding year, and no surprise would have been felt had last year's coal output shown a material decrease. The loss in production, however, was very insignificant, and amounted to less than three hundred tons. The increase in tonnage in a number of mines, together with the additional output of new mines opened, nearly balanced the losses.

Two mines were abandoned and six shipping mines and five local mines were opened during the last two years.

The Illinois & Iowa Fuel Company closed its mine at Forbush last May, and a small mine near Exline, belonging to the White Oak Coal Company was abandoned last fall.

Of the new mines opened, mine No. 2, operated by the Scandinavian Coal Company, is located near Plano, on the Keokuk & Western railroad. It is substantially equipped, well arranged, has second opening, and is ventilated by a force fan fourteen feet in diameter.

The Exline Coal Co. experienced considerable difficulty in opening its No. 2 mine, located about three-fourths of a mile west of Exline, and about one-fourth mile east of mine No. 1. The shaft was sunk in a fault, and for a time it seemed that it would have to be abandoned, but good coal has been reached and the mine is now being developed. It is in good condition and the requirements of the law are fully complied with.

The Iowa Block Coal Co. opened a mine east of Exline, but the coal proved somewhat faulty and development work has been progressing but

slowly. An air and escape shaft has been sunk and connected with the workings and fan ventilation will be used.

The Prairie Block Coal Co. has opened a shaft mine on the Rock Island railroad, between Shawville and Numa, and has recently completed its air and escape shaft.

The Center Coal Co.'s. new shaft is located south of Centerville and connected with the Rock Island railroad. It is in good condition and provided with the safety devices the law requires. The sinking of the air and escape shaft is now progressing.

The Appanoose Coal and Fuel Co. opened a shaft mine near Diamond, on the Milwaukee railroad. It will have fan ventilation and mining machines, run by electricity will be used.

Of the five local mines recently opened, one is located in Centerville, two north of Exline, one north of Cincinnati and one east of Seymour.

In order to show what has been accomplished and the conditions prevailing at the close of this biennial period in the mines of Appanoose county, the following brief summary is given.

Appanoose Coal & Fuel Co. Mine No. 3. Has been somewhat improved during the last two years and, with care, can be kept in fairly satisfactory condition.

Walnut Block Coal Co. The mine is now worked on a small scale. Considerable improvements must be made before its output can be materially increased.

Phoenix Coal Co. Mechanical haulage has been substituted for mule haulage; the furnace has been enlarged and placed to better advantage. Mine in fair condition.

Centerville Block Coal Co. Mine No. 5. The ventilation, although improved and fairly satisfactory at present, should be made more efficient by providing means to increase the air volume going through the mine. The mine is in fair physical condition.

Tipton Co-operative Coal Co. Mine worked on a small scale and will probably soon be exhausted.

Peacock Coal Co. Mine in fair condition.

Oriental Coal Co. Mine in fair condition.

Keystone Coal Co. Mine in fair condition.

Centerville Block Coal Co. Mine No. 3. The escape shaft has been retimbered. Air volume too small for the needs of the mine. Under existing conditions it has proved a difficult task to better the ventilation materially, but some progress has been made in that direction. It is the intention of the management to sink an air shaft as soon as the east workings have advanced far enough to admit of its location with advantage to the mine and its future development.

Anchor Coal Co. Mine No. 1. The hoisting shaft has been enlarged and retimbered. By enlarging the air shaft also ventilation has been improved, although the north workings are not yet in satisfactory condition in that respect. Otherwise the mine is well cared for.

Scandinavian Coal Co. Mine No. 1. An additional air and escape shaft, located near the head of the workings, was recently completed, improving the ventilation and adding to the safety of the mine.

Dewey Coal Co. Mine in fair condition.

Hocking Valley Coal Co. Mine No. 4. Ventilation slack. As soon as a shaft, already sunk, is reached and a suitable furnace built at the bottom of it, the ventilation can be kept in satisfactory condition.

Hocking Valley Coal Co. Mine No. 1. Fair sized air shaft has been sunk. The mine was idle for several months after the dump and other buildings burned down, February 4, 1905, and the workings have suffered in consequence. After the damage has been repaired, the mine can be maintained in fair condition.

The Albert mine, operated by the Mendota Coal & Mining Co., has been much improved in the last two years and is in satisfactory condition. Improvements were also noted in the Appanoose mine, belonging to the same company.

Thistle Coal Co. Mine No. 1. Air shaft completed and fan erected. Mine No. 2. Main air course thoroughly cleaned and mine otherwise improved. Mine No. 3. In fair condition.

Exline Coal Co. Mine No. 1. Fan ventilation has taken the place of ventilation by steam jet. Mine in good condition.

Centerville Block Coal Co. Mine No. 9. In good condition.

Centerville Block Coal Co. Mine No. 2. This mine has been greatly improved and conditions are satisfactory.

Numa Block Coal Co. Mine No. 1. Ventilation has been deficient, but recently the fan has been removed from the quarter shaft, which is very small, to a shaft of larger dimensions, and better results in that respect can be expected.

Anchor Coal Co. Mine No. 3. The ventilation is improved; top works have been remodeled and the mine is in satisfactory condition.

Anchor Coal Co. Mine No. 2. In fair condition.

Centerville Block Coal Co. Mines Nos. 1 and 10. These mines are connected and are in good condition. The boiler power has been increased, the hoisting shaft of mine No. 1 has been retimbered and a new fan erected on the air shaft of mine No. 10, furnishing satisfactory ventilation for both mines.

Consumers Coal Co. The mine is in fair condition, but on account of a small sized air shaft, inadequate power to drive the fan and the poor construction of the fan itself, it has been difficult in the past to provide satisfactory ventilation for the mine. This summer the air shaft has been enlarged, the fan is now being remodeled and improved and a more powerful fan engine will be used. The results will be entirely satisfactory.

Big Jo Coal Co. Mine No. 1. Some difficulty was experienced in ventilating the southeast workings successfully, but since the west side of the mine has been abandoned, with the air courses in somewhat better shape, more satisfactory results may be expected.

F. H. Juckett Coal Co. Mine in fair condition.

Appanoose Coal & Fuel Co. Mine No. 21. When the present owners acquired this mine, it was in poor condition. It had been worked in a haphazard way and the lack of system made progress in its improvement difficult and slow. Much work remains yet to be done to put the mine in satisfactory condition.

Peerless Coal Co. Mine No. 4. In fair condition.

Peerless Coal Co. Mine No. 5. In fair condition.

Egypt Coal Co. The mine needs more adequate means to ventilate it properly.

Peerless Coal Co. Mine No. 1. In fair condition.

Artic Coal Co. Mine in fair condition.

Acken Coal Co. Mines No. 1 and 2 are now ventilated by a fan and, with proper attention, can be kept in satisfactory condition.

Peerless Coal Co. Mine No. 2. In good condition.

Mystic Coal Co. Mine in fair condition. An additional escape shaft has been sunk.

J. Helme Coal Co. Mine fairly satisfactory.

Diamond Block Coal Co. Mine No. 29. Somewhat improved and in fair condition.

Peerless Coal Co. Mine No. 6. Mechanical haulage installed. Ventilation fair in the west part of the mine, somewhat deficient in the east portion. At present the mine has furnace ventilation, but fan ventilation should be substituted as soon as the east workings can be connected with the Mystic Block mine. The latter is already connected with the above company's No. 3 mine, and a fan erected at the Mystic Block mine opening could provide efficient ventilation for both mines.

Peerless Coal Co. Mine No. 3. In fair condition.

Diamond Block Coal Co. Mine No. 12. Slope has been retimbered. The present manway is not in good condition, and it either should be put in more available condition or a new manway should be provided. Ventilation fair.

Orr Bros. Coal Co. Mine in fair condition.

Diamond Block Coal company, mine No. 5. Much improved in the last two years. In good condition.

Star Coal company. Mine well ventilated and in good condition.

Unity Block Coal company. Mine in fair condition.

Manufacturers Coal and Coke company. Mine No. 30. In fair condition.

The local mines were generally found to be in safe condition. In a few cases ventilation was deficient, but as the mines are of small extent it was not difficult to remedy this and provide a satisfactory volume of air for them.

It is not generally realized that the coal wealth of Appanoose county is far greater than that of any other county in Iowa. Making due allowance for all the coal mined in this county since its first mine was opened and considering only the vein now worked, the county's future available coal supply can be safely placed at 250,000,000 tons, a supply lasting at the present rate of production, for more than 250 years. There is no danger of any of the coal mining towns in the county being vacated in the near future on account of the coal in their vicinity giving out. Taking the town of Mystic, for instance, and supposing that the present yearly output of all the mines located along the Milwaukee railroad from Darbyville to Jerome had to be produced from now on in Mystic and its immediate vicinity alone it will be possible, under such conditions, for the Mystic miner to walk to his work fifty years hence, and the average distance traveled by him to reach his work need not exceed two miles from the center of the town.

Of the sixty-two mines in Appanoose county having shipping facilities, sixteen are worked on the room and pillar plan and forty-six on the long-wall system. In fifteen mining machines are in use.

The mines are easily maintained in safe condition. The safe condition of the traveling roads used by the miners and others in going to and returning from their work, is shown by the fact that the 3,000 underground workmen in the county traveled through these passages during the last two years, every day the mines worked, without serious injury to one of them. What danger exists in these mines is generally encountered at the working face. There three fatal accidents occurred in the last two years, caused either by falls of black bat or coal.

Unfortunately, somewhat unfavorable market conditions prevent the steady operation of the mines, and any one conversant with coal mining knows that with slack work prevailing, it is always more or less difficult and expensive to keep the mines in order. Notwithstanding this drawback, the great majority of the Appanoose county mines have been maintained in fair condition during the last two years, and a considerable number of them have been materially improved.

[illegible]

APPANOOSE COUNTY—CONTINUED.

Corperation, Firm or Operator.	Mine number.	Location of Mine.	Railroad Connection, if Any.	Kind of opening.	System of Working.	Power used.	Means of ventilation.
Star Coal company	Shaft.	Room and pillar.	Horse	Furnace.
Trio Coal company	Shaft.	Room and pillar.	Horse	Furnace.
Rock Valley Coal company	Shaft.	Room and pillar.	Horse	Furnace.
John Schrumm	Shaft.	Room and pillar.	Horse	Furnace.
John Koonts	North of Centerville.	.....	Shaft.	Room and pillar.	Horse	Furnace.
Elgin & Barrett	East of Mystic .....	.....	Slope	Long wall	Horse	Furnace.
Bittinger & Company	Mystic .....	.....	Slope	Long wall	Horse	Furnace.
W Milburn	Mystic .....	.....	Slope	Long wall	Horse	Furnace.

MONROE COUNTY (Part).

Two years ago, by the Governor's order, the part of Monroe county bounded on the west by the Wabash railway and on the south by the main line of the C., B. & Q., was taken out of the first inspection district and added to the second. In the part of Monroe county, left in this district, thirteen mines are operated. Eleven of these have direct railroad connections and two have not. The latter, however, ship a considerable portion of their output by rail. The coal carrying railroads are the C., B. & Q., the Iowa Central and the C., M. & St. P. The Wabash railway has so far no mines in this county contributory to it.

The working time of the mines on the whole was considerably less last year than in the preceding year, only three mines showing gains in this respect. The mine of the Excelsior Coal Co. made a gain of eighteen days last year over the preceding year, mine No. 6 of the Phillips Fuel Co. gained seventy-eight days and mine No. 10, operated by the Whitebreast Fuel Co., of Illinois, gained sixteen days. These three mines employed last February 352 miners as against 281 in February, 1904, and the increase in their coal output last year over the year ending June 30, 1904, amounted to 37,091 tons. On the other hand, there was a marked loss in working time last year in the remaining important mines in the county. Mine No. 3 of the Wapello Coal Co. lost fifty-seven days; mine No. 4 of the same company, sixty-four days; No. 4 mine of the Smoky Hollow Coal Co., 24 days; No. 6 mine of the same company, thirty-seven days; mine No. 1 of the Hocking Coal Co., forty days; and mine No. 2 of the same company, thirty-nine days. Considering this serious drawback, these mines show but a comparatively small reduction in their coal output last year. In the year ending June 30, 1904, these mines produced 889,890 tons of coal, with 1,017 miners employed in February, 1904; last year they produced 850,333 tons of coal with 1,148 miners working last February. The gain in production made by the mines on the Milwaukee railroad, together with the gain coming from mine No. 3 of the Hocking Coal Co. more than balanced the losses shown, and the net increase in last year's coal production of the part of Monroe county assigned to this district over the preceding year amounted to 10,809 tons.

Six corporations control the above eleven railroad mines. The Smoky Hollow Coal Co. operates mines 4, 6 and 7, located southeast of Avery. Mine No. 7, although opened for more than two years, has been worked but little, but as No. 4 mine will soon be exhausted, preparations are now being made to develop the new mine. It has a fine slope opening, is ventilated by a fan, sixteen feet in diameter, and its general condition is good. Mine No. 6 belonging to the above company, is one of the largest mines in the State, employing an underground force of about 400 men and boys. To keep a

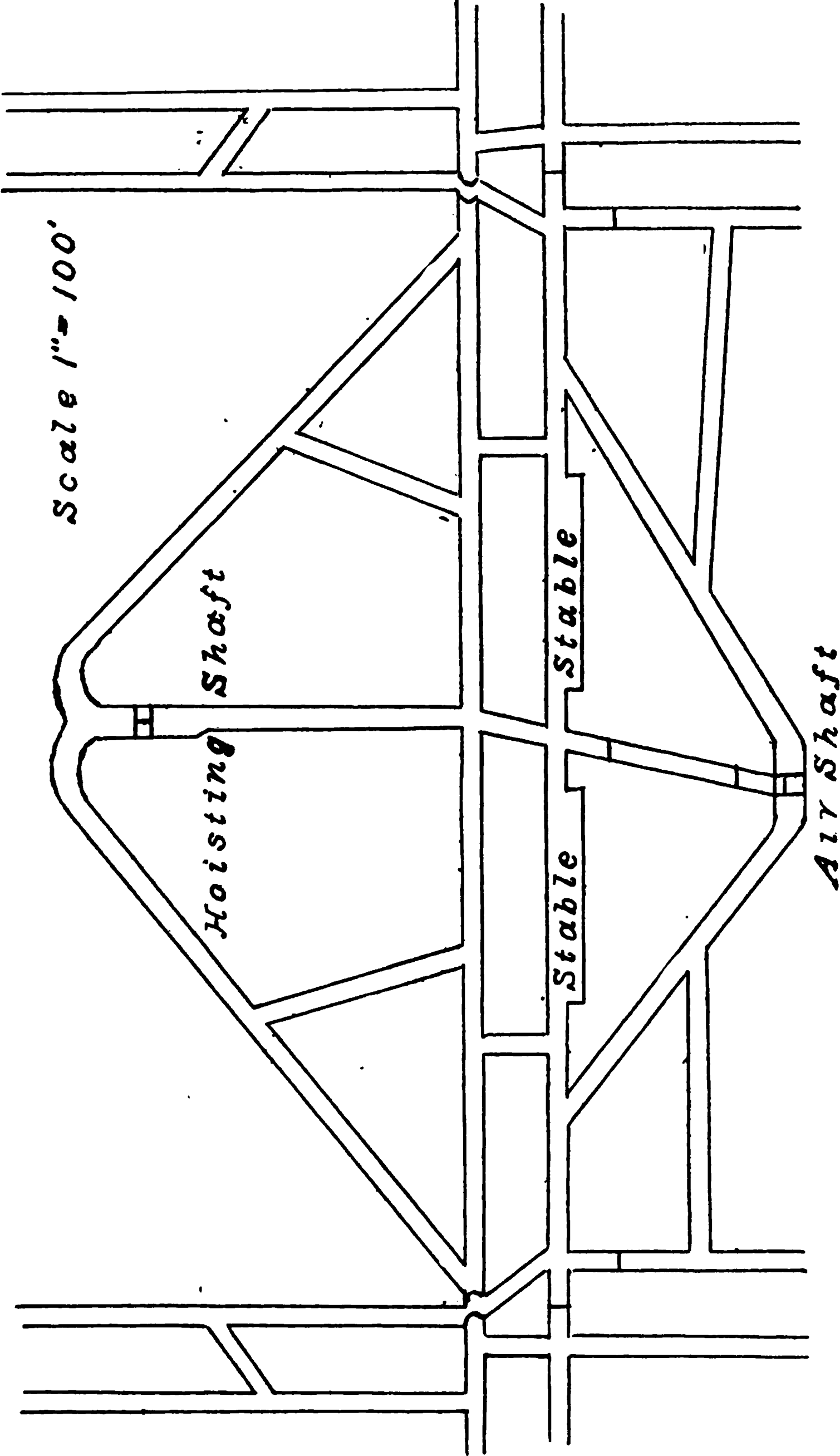
mine of this size always in good condition, in all its parts, is a serious problem but it has been fairly satisfactorily solved by the management in the past, and there is reasonable assurance that the future needs of the mine will be well cared for. The ventilation was nearly always found in satisfactory condition and due consideration was given to provide reasonable safety for the men employed in the mine. A separate traveling road, of fair dimensions and in good condition, parallels the main haulage road.

The Wapello Coal company operates mines 3 and 4, located respectively west and northwest of Hiteman. No. 4 mine is in good condition, well cared for and fairly well ventilated. The system adopted in this mine, and used for the first time on an extensive scale in Iowa, of leaving the main cross entries solid and driving cross entries, from which the rooms are turned, connecting them, has given entire satisfaction. The adoption of this system has resulted in materially reducing the danger from squeezes. It has permitted the installation of an economical and efficient haulage system and it has proved of especial benefit to the ventilation of the mine. In mine No. 3 considerable work has been done to develop the south side of the mine and increase its output and at the same time efforts have been made to better its sanitary condition. The south air course is being enlarged, stoppings have been rebuilt and coated with cement, the mine stables have been moved to safer and better locations and other work has been done to improve the mine and benefit the men working in it. In both mines separate traveling roads, paralleling the haulage roads, have been provided and they are maintained in good condition.

The need of thorough and careful prospecting of supposed coal territory, before commencing its actual development, is again shown by the mistake made in opening the mine of the Excelsior Coal Co. in its present location. The mine has not proved a success, its total coal production has been small and in all probability it will soon be abandoned.

Mine No. 6 of the Phillips Fuel Co. has been made safer and its ventilation has been improved by the sinking of an additional air shaft. It was in this mine two shotfirers lost their lives on January 20, 1904. Another fatal accident occurred in it on March 23, 1905, when Thos. Davis, a miner, was killed by a fall of slate in his room. Considerable improvement will have to be made in the ventilating apparatus and airways to keep the ventilation of the mine in satisfactory condition.

Mine No. 10, operated by the Whitebreast Fuel Co., of Illinois, is well arranged for the rapid and economical handling of a large output of coal. The tower is steel, the hoisting is done by a pair of first motion engines and labor saving devices are used to advantage. The mine is ventilated by a force fan, fourteen feet in diameter, set in a steel casing. While its engine is of ample power, the fan itself shows weakness in construction, and, although partially successful efforts have been made to strengthen it, it can only be run safely at a rather low speed, and consequently its efficiency is kept at a correspondingly low point. In parts of the mine the roof is rather tender, but notwithstanding this, no fatal accidents occurred in it during the last two years. The mine has been in operation more than four years with an average force of 175 miners employed, and in all that time not a miner lost his life while at work in his place.



Scale 1" = 100'

Hoisting
Shaft

Stable
Stable

Air Shaft

The Hocking Coal Co. operates three mines, located a few miles south of Albia. Mine No. 1 will soon be abandoned. When the present Hocking Coal Co. bought this mine it was in bad condition and all efforts to improve it since have been but indifferently successful. I believe little regret will be felt over the closing of this mine. Mine No. 2 has been greatly improved during the last year and a half, and considering its extent and the number of men employed (350) is in very fair condition. The management intends to install mechanical haulage and when that is done the mine's future coal output should show a material increase. Mine No. 3 was opened this year and promises to become one of the largest coal producers in the State. The coal is of fair thickness and of good quality. A steel tower will be erected, self-dumping cages will be used, a first motion hoisting engine is already in place and the usual labor saving devices will be provided. The mine is ventilated by a force fan, fourteen feet in diameter, which is capable of delivering nearly 1,000 cubic feet of air per revolution. The shaft bottom (see sketch) has been well arranged to facilitate the rapid handling of coal and the underground arrangements for the future successful ventilation of the mine are good.

It is not probable that any new mines will be opened this year in the part of Monroe county belonging to this district, and as the mines in operation are in condition to greatly increase their output to meet any immediate future demand, there appears to be little need to add, for the present at least, to the number of mines now working.

MINES IN MONROE COUNTY (PART), THEIR LOCATION, ETC.

Corporation, Firm or Operator.	Mine number.	Location of Mine.	Railroad Connection, if Any.	Kind of opening.	System of Working.	Power used.	Means of ventilation.
.....	3	.....	O., B. & Q.	Shaft.	Room and pillar.	Steam	Fan.
.....	4	.....	O., B. & Q.	Shaft.	Room and pillar.	Steam	Fan.
.....	4	.....	O., B. & Q.	Slope.	Room and pillar.	Steam	Fan.
.....	6	.....	O., B. & Q.	Slope.	Room and pillar.	Steam	Fan.
.....	7	.....	O., B. & Q.	Slope.	Room and pillar.	Steam	Fan.
.....	8	.....	O., M. & St. P.	Shaft.	Room and pillar.	Steam	Fan.
.....	9	.....	O., M. & St. P.	Shaft.	Room and pillar.	Steam	Fan.
.....	10	Hilton.....	O., M. & St. P.	Shaft.	Room and pillar.	Steam	Fan.
.....	1	Hocking.....	Iowa Central.	Shaft.	Room and pillar.	Steam	Fan.
.....	2	Southeast of Hocking.....	Iowa Central.	Shaft.	Room and pillar.	Steam	Fan.
.....	3	2 1/2 miles south of Albia.....	Iowa Central.	Shaft.	Room and pillar.	Steam	Fan.
.....	4	Northwest of Albia.....	.....	Shaft.	Room and pillar.	Steam	Fan.
.....	5	South of Avery.....	.....	Slope.	Room and pillar.	Steam	Fan.

LUCAS COUNTY.

The coal production of Lucas county for the year ending June 30, 1903 amounted to 269,539 tons, for the year ending June 30, 1904, it was 239,384 tons, during last year 165,256 tons were produced and conditions, as they exist at present, seem to warrant the prediction that, in all probability, the year just entered upon will show no increase and may even show a further decline in the coal output. This is undoubtedly an unfavorable showing, but it should not be taken as an indication that the coal mining industry of the county is in a bad way and that another collapse of the mining business, like that which occurred fourteen years ago, need be feared. The outlook for the future growth of the county's coal industry was never better than at this time, and it is certain that this temporary present decline will be amply compensated for in the near future.

The shrinkage in tonnage last year was largely due to the slack work prevailing and the closing down of the Big Hill mine last April.

The principal mine in the county is located at Cleveland and is operated by the Whitebreast Fuel company of Illinois. The mine is provided with good machinery of ample power to take care of a large coal output, has a steel tibble and its safety devices and other equipments are in good order. The shaft is 321 feet deep. Motor haulage is used with satisfactory results. The mine is ventilated by a force fan twenty feet in diameter, set in a steel casing. The fan furnishes a fair air volume, but as the mine is large great care is necessary to keep the ventilation of all its parts in satisfactory condition. The difficulty is made greater by the existence of an extensive fault, running in a southwesterly direction and dividing the mine in two parts. The north side is now fairly well ventilated and the south will be improved in this respect. Work is now going on to clean and enlarge the south air course with the view of not only benefiting the ventilation but to also provide an available and safe traveling way, apart from the main haulage road, for the men working in the south part of the mine.

As stated above the Big Hill mine at Lucas was closed down last April. The cars, rails, pumps, etc., were removed from the mine, and it appeared that its abandonment was complete. Recently, however, arrangements were made to reopen the mine, and the indications are that it will be in operation again soon.

The Inland Fuel Company's mine, located north of Chariton, is in good condition.

In the above three mines the lower seam of coal is worked. Its average thickness is about five feet. The veins worked in the few small local mines in the county belong to the upper coal measures and their thickness seldom exceeds two feet.

The number of fatal accidents was less during the last two years than during the preceding two years. In the biennial period ending June 30, 1903, five fatal accidents occurred in the mines of the county, while but two occurred in the biennial period just closed.

MINES IN LUCAS COUNTY, THEIR LOCATION, ETC.

Corporation, Firm or Operator.	Mine number.	Location of Mine.	Railroad Connection, if Any.	Kind of opening.	System of Working.	Power used.	Means of ventilation.
Whitebreast Fuel company.....	4	Cleveland	C., B. & Q.	Shaft.	Room and pillar.	Steam	Fan.
Big Hill Fuel company .....	.....	Lucas	C., B. & Q.	Shaft.	Room and pillar.	Steam	Fan.
Inland Fuel company .....	.....	8½ miles northeast of Charlton.....	.....	Shaft.	Room and pillar.	Steam	Fan.
Skidmore Bros.....	.....	Northeast of Lucas .....	.....	Shaft.	Long wall	Horse.....	Furnace.

WAYNE COUNTY.

The coal output of Wayne county is at present produced by ten mines two of them having shipping facilities and eight doing a local business. The two shipping mines are located at Seymour, five of the local mines are located south of Confidence, two about five miles west and southwest of Seymour and one near Harvard. The Big Jim mine, connected with the C., M. & St. P. Railroad and operated by the Numa Block Coal Co. produced more coal during the last two years than any other mine in the Appanoose-Wayne field. At this mine the coal was reached at a depth of 202 feet. The hoisting is done by first motion engines and self-dumping cages and a box car loader facilitates the handling of the mine's output. A fan sixteen feet in diameter ventilates the workings satisfactorily. The Sunshine mine, connected with the Rock Island Railroad, was purchased about three years ago from the Seymour Coal Co. by the Numa Block Coal Co. At the time the purchase was made and for some time afterwards the mine was in bad condition, but the shafts have since been enlarged and timbered throughout, new cages have been provided, the underground workings have been improved and the mine's coal output has been materially increased. The ventilation of the mine is better than formerly and there is reasonable assurance that [further improvement in that direction] will be made.

Of the local mines the Frye mine south of Confidence and the Walker mine, five miles southwest of Seymour, are the best equipped. At both mines steam power is used, the mine buildings are of a substantial character and the safety devices, required by law, are in good condition.

The mines in the country are worked long-wall and the mine workings are fairly safe. While there were two fatal accidents during the last two years, none occurred at the face. John McCue was killed in mine No. 3 of the Numa Block Coal company on February 20, 1904, while crossing the shaft, and Ed Green lost his life on January 6, 1905, in the tibble of the Big Jim mine by being crushed between the slack car and a heavy timber.

The yearly coal output of the county was greater last year than ever before and for the first time exceeded 100,000 tons.

MINES IN WAYNE COUNTY, THEIR LOCATION, ETC.

Corporation, Firm or Operator.	Mine number.	Location of Mine.	Railroad Connection, if Any.	Kind of opening.	System of Working.	Power used.	Means of ventilation.
Numa Block Coal company.	2	1 mile east of Seymour	C., M. & St P.	Shaft.	Long wall.	Steam	Fan.
Numa Block Coal company.	3		O., R. I. & P.	Shaft.	Long wall.	Steam	Fan.
J. L. Black				Shaft.	Long wall.	Horse	Furnace.
R. McCracken				Shaft.	Long wall.	Steam	Furnace.
Sam Walker				Shaft.	Long wall.	Steam	Furnace.
E. A. Sipes				Shaft.	Long wall.	Steam	Furnace.
A. H. Hayhurst				Shaft.	Long wall.	Horse	Furnace.
John Hayhurst				Shaft.	Long wall.	Horse	Furnace.
L. Frye		South of Confidence		Shaft.	Long wall.	Steam	Fan.

TAYLOR COUNTY.

The principal mines in Taylor county are located near New Market and three of these have switches off the Burlington road. In the northwestern part of the county three or four small mines are operated during the fall and winter, but their coal output is limited. The coal vein is about sixteen inches thick, is reached by shafts and worked long-wall. The underground conditions are conducive to safe mining and accidents in the mines are rare, none of a serious nature having occurred in the last two years. Hoisting is done by horse power entirely and the apparatus used is now in fairly satisfactory condition. Ventilation is produced by small furnaces and not difficult to maintain.

The returns show that the coal output of the county has not been as great last year and the year before as in former years. Various causes have contributed to this end, but the principal one, I believe, was the opening of the mines near Clarinda.

MINES IN TAYLOR COUNTY, THEIR LOCATION, ETC.

Firm or Operator.	Mine number.	Location of Mine.	Railroad Connection, if Any.	Kind of opening.	System of Working.	Power used.	Means of ventilation.
Tomlinson & Pace	1	East of	C, B. & Q.	Shaft.	Long wall	Horse.	Furnace.
Campbell Coal Co.	2	East of	C, B. & Q.	Shaft.	Long wall	Horse.	Furnace.
Campbell Coal Co.		East of	C, B. & Q.	Shaft.	Long wall	Horse.	Furnace.
Wm. Browning		East of	C, B. & Q.	Shaft.	Long wall	Horse.	Furnace.
N. Bester		2 miles		Shaft.	Long wall	Horse.	Furnace.
H. Ankeny		6 miles		Shaft.	Long wall	Horse.	Furnace.
I. Ankeny		6 miles		Shaft.	Long wall	Horse.	Furnace.
F. Heller		6 miles north of New Market.		Shaft.	Long wall	Horse.	Furnace.
W. B. Rogers		Henshaw		Shaft.	Long wall	Horse.	Furnace.

PAGE COUNTY.

The four mines in this county, located west and southwest of Clarinda and within a few miles of that town, produced during the last two years a little more than thirty-four thousand tons of coal. They have no railroad facilities and have done no shipping of coal by rail, but they have a good home market, and in the winter time the demand often exceeds the supply.

The vein worked averages less than eighteen inches in thickness and is of fair quality. Shafts of considerable depth are necessary to reach the coal, and this, together with the thinness of the coal, makes mining rather expensive.

The equipment of the mines compares favorably with the equipments of mines of like character elsewhere. The safety devices in use conform to the requirements of the law. Second openings have been made at all the mines and they are kept in available condition. The hoisting apparatus is kept in fair order. Ventilation is produced by small furnaces and is nearly always satisfactory.

Favorable natural conditions tend to make the work of the miner comparatively safe, yet two fatal accidents occurred in this county about a year and a half ago. One in a small mine located about five miles south of Clarinda, the other in the Johnston mine west of the county seat. No serious accident has occurred in any of the mines in Page county in the last year and a half.

MINES IN PAGE COUNTY, THEIR LOCATION, ETC

Firm or Operator.	Mine number.	Location of Mine.	Railroad Con- nection, if any.	Kind of open- ing.	System of Work- ing.	Means of venti- lation.	Power used.
Johnston & Co.	1	2 miles southwest of Clarinda ....	.....	Shaft	Long wall	Horse	Furnace
Van Arndol & Woods .....		.....	.....	Shaft	Long wall	Horse	Furnace
J. W. Berry Coal company. .		2 1/2 miles southwest of Clarinda ....	.....	Shaft	Long wall	Horse	Furnace
J. S. Moore .....		.....	.....	Shaft	Long wall	Horse	Furnace

ADAMS COUNTY.

On account of the smallness of the coal seam and the fact that no mines have been developed near the railroad, no coal is shipped from the county by rail, and as there are but few factories and no large coal consuming concerns in the county, the market is limited to the demands for home use and consequently the yearly coal production has never been large. In the aggregate, however, since the time mining first commenced in the county, until now, Adams county has made a fair record. While absolutely correct data are not available, I believe it can be safely assumed that its coal production during the last thirty years has amounted to about 300,000 tons.

The coal seam averages about sixteen inches in thickness, fairly free from impurities. It is reached by shallow shafts and worked long-wall. While the equipment of the mines is generally of a rather crude character, the safety of the miners is not neglected. Mining so far has been carried on only in the western half of the county, along the Nodaway river and its branches and the principal mining centers are near Carbon, Eureka, Briscoe and Hoyt.

No extensive systematic efforts have been made to discover the existence of available seams of coal below the one now worked and it is problematical if any can be found. At Carbon a hole was put down to the depth of more than 400 feet. The work was done with a core drill. The strata drilled through consisted principally of lime shale, limestone and sandstone, and no other indications whatever of coal were found.

As most of the work in the mines of this county is done during the colder months of the year, and as the mine workings are never extensive and the number of men working in each mine small, little difficulty is experienced in keeping the mine ventilation in satisfactory condition.

Owing to favorable natural conditions and the method of working the coal, accidents to miners of a serious nature are very rare, and none has occurred during the last two years.

MINES IN ADAMS COUNTY, THEIR LOCATION, ETC.

Firm or Operator.	Mine number.	Location of Mine.	Railroad Connection, if Any.	Kind of opening.	System of Working.	Power used.	Means of ventilation.
Chas. Orist.....	Eureka.....	.....	Shaft.	Long wall.....	Horse.....	Furnace.
Jas. Hartshorn.....	Eureka.....	.....	Shaft.	Long wall.....	Horse.....	Furnace.
J. M. Henton.....	Eureka.....	.....	Shaft.	Long wall.....	Horse.....	Furnace.
Ed. Amdor.....	North of Carbon	.....	Shaft.	Long wall.....	Horse.....	Furnace.
M. Jones.....	Carbon.....	.....	Shaft.	Long wall.....	Horse.....	Furnace.
J. F. Ruah.....	Carbon.....	.....	Shaft.	Long wall.....	Horse.....	Furnace.
J. F. Wild.....	2	Carbon.....	.....	Shaft.	Long wall.....	Horse.....	Furnace.
Collins & Barker.....	Carbon.....	.....	Shaft.	Long wall.....	Horse.....	Furnace.
H. Houck.....	Carbon.....	.....	Shaft.	Long wall.....	Horse.....	Furnace.
Herm. Day.....	West of Carbon	.....	Shaft.	Long wall.....	Horse.....	Furnace.
Jas. Gammell.....	West of Carbon	.....	Shaft.	Long wall.....	Horse.....	Furnace.
Eclipse Coal company.....	Brisco.....	.....	Shaft.	Long wall.....	Horse.....	Furnace.
O. L. Harlan.....	Brisco.....	.....	Shaft.	Long wall.....	Horse.....	Furnace.
Mason & Dougherty.....	Northwest of Nodaway.....	.....	Shaft.	Long wall.....	Horse.....	Furnace.

List of corporations, firms and individuals operating mines in the first district, their postoffice address, number of mines operated by them in the district and shipping facilities, if any.

Corporation, Firm or Individual.	Address.	No. of mines.	Shipping Facilities.
Scandinavian Coal company	Centerville.	2	Keokuk & Western.
Appanoose Coal and Fuel company.	Diamond.	3	Keokuk & Western and Chi- cago, Milwaukee & St. Paul
Walnut Block Coal company	Centerville.	1	Keokuk & Western.
Phoenix Coal company	Brazil.	1	Keokuk & Western.
Centerville Block Coal company	Centerville.	6	Keokuk & Western, Chicago, Rock Island & Pacific and Iowa Central
Tipton Co-operative Coal Co.	Brazil.	1	Keokuk & Western.
Peacock Coal company	Brazil.	1	Keokuk & Western.
Oriental Coal company	Centerville.	2	Keokuk & Western.
Keystone Coal company	Centerville.	1	Keokuk & Western.
Anchor Coal company	Centerville.	3	Keokuk & Western and Chi- cago, Milwaukee & St. Paul
Dewey Coal company	Centerville.	1	Keokuk & Western.
Hocking Valley Coal company	Cincinnati.	2	Chicago, Rock Island & Pacific, Cincinnati & Kansas
Mendota Coal and Mining company.	Cincinnati.	2	Chicago, Rock Island & Pacific, Cincinnati & Kansas
Thistle Coal company	Cincinnati.	3	Chicago, Rock Island & Pacific, Cincinnati & Kansas
Exline Coal company	Exline.	2	Chicago, Rock Island & Pacific, Cincinnati & Kansas
Iowa Block Coal company	Centerville.	1	Chicago, Rock Island & Pacific, Cincinnati & Kansas
Illinois and Iowa Fuel company	Ottumwa.	1	Iowa Central
Numa Block Coal company	Seymour.	3	Chicago, Rock Island & Pacific and Chicago, Milwaukee & St. Paul.
Prairie Block Coal company	Centerville.	1	Chicago, Rock Island & Pacific.
Center Coal company	Centerville.	1	Chicago, Rock Island & Pacific.
Consumers Coal company	Cedar Rapids ..	1	Chicago, Milwaukee & St. Paul.
Big Jo Coal company	Harkee.	1	Chicago, Milwaukee & St. Paul.
F. H. Juckett Coal company	Cedar Rapids ..	1	Chicago, Milwaukee & St. Paul.
Peerless Coal company	Centerville.	6	Chicago, Milwaukee & St. Paul.
Egypt Coal company	Mystic.	1	Chicago, Milwaukee & St. Paul.
Artic Coal company	Mystic.	1	Chicago, Milwaukee & St. Paul.
Achen Coal company	Mystic.	2	Chicago, Milwaukee & St. Paul.
Mystic Coal company	Mystic.	1	Chicago, Milwaukee & St. Paul.
J. Helms Coal company	Mystic.	1	Chicago, Milwaukee & St. Paul.
Diamond Block Coal company	Mystic.	3	Chicago, Milwaukee & St. Paul.
Cedar Rapids Fuel Co.	Cedar Rapids ..	1	Chicago, Milwaukee & St. Paul.
Beggs Coal company	Mystic.	1	Chicago, Milwaukee & St. Paul.
Orr Bros. Coal company	Mystic.	1	Chicago, Milwaukee & St. Paul.
Star Coal company	Rathbun.	1	Chicago, Milwaukee & St. Paul.
Unity Block Coal company	Darbyville.	1	Chicago, Milwaukee & St. Paul.
Manufacturers Coal & Coke company	Centerville.	1	Keokuk & Western and Chicago Rock Island & Pacific.
Domestic Coal company	Cincinnati.	1	
White Oak Coal company	Exline.	1	
Red Oak Coal company	Exline.	1	
O. W. Tunnell	Exline.	1	
J. R. Pettigrew	Seymour.	1	
Ira A. Quinn	Coal City.	1	
Walnut Grove Coal company	Numa.	1	Chicago, Rock Island & Pacific.
J. R. Wright	Centerville.	1	
J. Sears	Centerville.	1	
Wm. Smith	Centerville.	1	
J. W. Shirey	Centerville.	1	

LIST OF CORPORATIONS, ETC.—CONTINUED.

Corporation, Firm or Individual.	Address.	No. of Mines.	Shipping Facilities.
Happy Coal company.....	Centerville.....	1	
White Oak Coal company.....	Centerville.....	1	
Monitor Coal company.....	Centerville.....	1	
Star Coal company.....	Centerville.....	1	
Trio Coal company.....	Centerville.....	1	
Rock Valley Coal company.....	Centerville.....	1	
John Schrum.....	Centerville.....	1	
John Koontz.....	Centerville.....	1	
Elgin & Barrett.....	Mystic.....	1	
E. Bittinger & Co.....	Mystic.....	1	
Wm. Milburn.....	Mystic.....	1	
Wapello Coal company.....	Hiteman.....	2	Chicago, Burlington & Quincy.
Smoky Hollow Coal company.....	Avery.....	8	Chicago, Burlington & Quincy.
Star Coal company.....	Albia.....	1	Chicago, Burlington & Quincy.
White Ash Coal company.....	Avery.....	1	Chicago, Burlington & Quincy.
Excelsior Coal company.....	Foster.....	1	Chicago, Milwaukee & St. Paul.
Phillips Fuel company.....	Ottumwa.....	1	Chicago, Milwaukee & St. Paul.
Hocking Coal company.....	Hocking.....	3	Iowa Central.
Whitebreast Fuel Co. of Illinois.....	Ottumwa.....	2	Chicago, Milwaukee & St. Paul and Chicago, Burlington & Quincy.
Inland Fuel company.....	Chariton.....	1	
J. L. Slack.....	Sewal.....	1	
Sam Walker.....	Seymour.....	1	
E. A. Sipes.....	Promise City.....	1	
A. H. Hayhurst.....	Promise City.....	1	
L. Frye.....	Promise City.....	1	
John Hayhurst.....	Promise City.....	1	
Tomlinson & Pace.....	Newmarket.....	1	Chicago, Burlington & Quincy.
Campbell Coal company.....	Newmarket.....	2	Chicago, Burlington & Quincy.
Wm. Browning.....	Newmarket.....	1	Chicago, Burlington & Quincy.
N. Easter.....	Newmarket.....	1	
H. Ankeny.....	Newmarket.....	1	
I. Ankeny.....	Newmarket.....	1	
F. Heller.....	Newmarket.....	1	
W. E. Rogers.....	Villisca.....	1	
Johnston & Company.....	Clarinda.....	1	
Van Arsdol & Woods.....	Clarinda.....	1	
J. W. Berry Coal company.....	Clarinda.....	1	
J. S. Moore.....	Clarinda.....	1	
Chas. Christ.....	Corning.....	1	
J. M. Henton.....	Corning.....	1	
Ed. Amdor.....	Carbon.....	1	
M. Jones.....	Carbon.....	1	
J. F. Ruth.....	Carbon.....	1	
J. F. Wild.....	Carbon.....	1	
Collins & Barker.....	Carbon.....	1	
H. Houck.....	Carbon.....	1	
H. Day.....	Nodaway.....	1	
Jas. Gammell.....	Nodaway.....	1	
Masan & Daugherty.....	Nodaway.....	1	
Eclipse Coal company.....	Briscoe.....	1	
C. L. Harlan.....	Cumberland.....	1	

SECOND DISTRICT.

LETTER OF TRANSMITTAL.

HON. ALBERT B. CUMMINS, Governor of Iowa.

Sir,—I have the honor to submit herewith, my first report as Mine Inspector of the Second District covering the biennial period ending June 30, 1905.

Very respectfully,

JAMES A. CAMPBELL,

Inspector Second District.

REPORT OF SECOND DISTRICT.

During the thirteen months of my service in the Second District, I have visited 173 mines, and, with but few exceptions, I found the safety and sanitary conditions of the mines to be reasonably satisfactory, and in mines where it was necessary to make changes to better the condition of the mine I found the owner ready and willing to comply with the orders of the inspector, and to use all efforts to comply with the mining laws.

There has been a large amount of prospecting and development work done in this district the last year, and it is evident from the number of new mines under construction, and more to follow, that there will be a natural increase in the coal tonnage from this district in the future.

There have been a number of mines abandoned in the past two years, however the number of new mines opened will more than offset the ones abandoned, particularly so in tonnage, as several of the mines that have gone out of business depended entirely upon the local trade, and the majority of the new mines that are under construction will do a shipping business and have a large tonnage.

It gives the inspector pleasure to note the care that is constantly exercised by the miners and mine owners to prevent accidents in the mines.

There have been fifty-five scales inspected and tested and out of the above number twenty-seven were found to be weighing incorrectly and were condemned. In all cases the mine owner showed a disposition to adjust the scales and put them into a position to weigh correctly.

**FATAL ACCIDENTS IN SECOND DISTRICT FOR THE TWO
YEARS ENDING JUNE 30, 1905.**

CARL J. PETERSON.

A miner employed at mine No. 10 of the Consolidation Coal Company, Monroe county, was fatally injured on August 15, 1903, by a fall of slate. One wrist and one leg was broken and he received internal injuries from which he died two hours later.

CHARLES WINCHELL.

A driver in the employ of the Black Diamond Coal Company was instantly killed on September 30, 1903. He was blasting coal when slate fell crushing him and killing him instantly.

DAVID HOPKINS.

A shotfirer in the employ of the Consolidation Coal Company of Monroe county, was killed on December 22, 1903, while performing his duties as shotfirer. He had lighted shot when shot came through pillar tearing him all to pieces.

EMMET GRIGGS.

Top hand and chunker for the What Cheer Fuel Company at mine No. 1, Keokuk county, was killed on December 28, 1903, while working for the above company. He was trying to stop a coal rack partially loaded with coal when he was knocked down and car ran onto him. One leg was mangled below the knee; flange of wheel cut into groin and injured him internally. He died same day of accident.

GEORGE W. COURTNEY.

Miner, employed by the Waddell Coal Company of Wapello county, was killed by a fall of slate in above mine on October 27, 1903. He died about twenty minutes after accident occurred.

BIRD PARKER.

A miner, employed in mine No. 11, of the Consolidated Coal Company of Monroe county, was killed on July 1, 1904, by a fall of slate. He was at work in his room at the time. His neck was broken and head mashed and from appearances he must have been instantly killed.

W. A. SMITH.

A nightman, employed in mine No. 10, of the Consolidation Coal Company of Buxton, was fatally injured by a fall of slate on June 14, 1904. His skull was fractured in two places and death resulted from his injuries two hours after the accident.

WILBUR J. ELY.

A blacksmith, employed by the Spring Creek Coal Company of Mahaska county, was killed on April 20, 1904, by falling from the top of a tower. timbers caught his glove and caused him to fall.

LEVI WOULD.

A cager, employed by the Dunreath Coal Company, was instantly killed at the above mine on July 15, 1904, by being caught in the cage and carried to the ground landing and dropped back into the shaft. He had signaled to hoist and then afterwards tried to put car on cage and was caught by the cage and was carried to the top of shaft as stated above.

DAVID JACKSON.

David Jackson, a miner employed by the Consolidation Coal Company in mine No. 10 was killed in said mine on the morning of August 20, 1904. He was waiting for shot to go off, and when shot went off it jarred down some slate which fell on him, injuring him so that he died within an hour.

JOHN KOELMAN.

John Koelman, a driver employed in the mine of the Bolton & Hoover Coal Company of Mahaska county, was killed on July 13, 1904, by being run over by a loaded car in the mine. He had failed to sprag car, and in hooking up mule got in front of car and it ran over him.

CHARLES BLANQUERT.

Charles Blanquert, a shotfirer in the employ of the Crescent Coal Company of Mahaska county, was killed on the afternoon of January 11, 1905, while engaged in the performance of his duties as shotfirer. Mr. Blanquert was killed by the shot making a break through into the place where he was when the shot went off. He was killed instantly.

OSCAR NELSON.

April 30, 1905, Oscar Nelson was killed by a fall of slate while engaged in mining coal in the mine at Coalfield. The accident resulting in his death was caused by a fall of slate. Mr. Nelson was working alone at the time, and no one saw the slate fall. He was one of the oldest miners in Coalfield. He lived for about twenty-four hours after the accident.

PORTER GLENN.

Porter Glenn, a miner in the employ of the Mammoth Vein Coal Company of Marion county, was killed on May 19, 1905, by a fall of roof in his room while engaged in his work in one of the mines of the above company.

Total Accidents in District No. 2 for Two Years Ending June 30, 1905.

Date.	Name of Deceased	Occupation.	Cause of Death.	Employed by—	County.
August 15, 1903	Carl J. Peterson.	Miner	Fall of slate	Mammoth View Coal Co.	Monroe.
September 20, 1903		Driver	Fall of slate		Mahaska.
December 22, 1903		Shotfirer	Flying coal.		Monroe.
December 23, 1903		Top hand.	Ran over by car		Keokuk.
October 27, 1903		Miner	Fall of slate		Mahaska.
April 20, 1904		Blacksmith	Falling from top of tower.		Mahaska.
June 1, 1904		Miner	Fall of slate		Monroe.
June 14, 1904		Nightman	Fall of slate		Monroe.
July 16, 1904		Cager	Caught by cage		Marion.
August 20, 1904		Miner	Fall of slate		Monroe.
July 18, 1904		Driver	Ran over by car		Mahaska.
January 11, 1905		Shotfirer	Flying coal.		Mahaska.
April 30, 1905		Miner	Fall of slate		Monroe.
May 19, 1905		Miner	Fall of slate		Marion.

**LIST OF NON-FATAL ACCIDENTS IN THE SECOND DISTRICT
FOR THE TWO YEARS ENDING JUNE 30, 1904.**

July 18, 1903, Robert Roberts, bellman, two bones in arm broken in Consolidation Coal Company's mine in Monroe county.

July 22, 1903, T. Balzer, refuse mover, Crescent Coal Company, Mahaska county, hand bruised by fall of slate; was necessary to amputate hand.

August 7, 1903, E. T. Ferrand, miner, Illinois & Iowa Fuel Company, Wapello county, leg broken by fall of slate.

August 28, 1903, George Lee, cager, at mine No. 10, Consolidation Coal Company, Monroe county, engineer lost control of engine and cage dropped to bottom of shaft. Thigh was fractured.

August 28, 1903, John Nichols, miner, Consolidation Coal Company, Monroe county, cage dropped to bottom of shaft. Knee dislocated.

August 28, 1903, Elias Swanson, miner, Consolidation Coal Company, Monroe county, cage dropped to bottom of shaft. Both ankles injured and injured internally.

August 28, 1903, Alex Beard, miner, Consolidation Coal Company, Monroe county, engineer lost control of engine and cage dropped to bottom of shaft. Fractured ankle and breast injured.

September 10, 1903, J. C. Slaughter, carpenter, Illinois & Iowa Fuel Company, Wapello county. Fell off scaffold; arm broken.

July 24, 1903, Walter Johnson, coupler, Consolidation Coal Company, Monroe county. Hand mashed and one bone of leg broken.

September 22, 1903, J. Spears, miner, hand crushed by fall of slate, Consolidation Coal Company, Monroe county.

September 23, 1903, C. M. Jones, miner, bruised through bowels by fall of slate in mine of Consolidation Company, Monroe county.

October 9, 1903, Simon Harris, miner, Consolidation Coal Company, Monroe county. Fracture of spine caused by fall of slate.

October 30, 1903, C. J. Johnson, miner, Illinois & Iowa Fuel Company, Wapello county. Crushed by fall of slate.

October 23, 1903, Sampson Hyde, coupler, What Cheer Fuel Company, Keokuk county. Crushed arm by being caught between top of cage and cross arm.

November 26, 1903, W. H. Millhouse, miner, Brown Bros. Mine, Wapello county. Leg broken by fall of slate.

November 25, 1903, Elijah Miller, cager, Consolidation Coal Company, Monroe county. Slipped under cage, right foot mashed and bones broken in foot.

December 5, 1903, W. W. Carey, boss driver, Consolidation Coal Company, Monroe county, was riding on air locomotive and was caught by trap door. Two ribs broken.

December 11, 1903, Richard Graves, night driver, Consolidation Coal Company, Monroe county. Car ran over his foot, mashing bones in heel.

December 14, 1903, A. Meyers, timberman, Consolidation Coal Company, Monroe county. Ankle dislocated and fracture of one leg bone at ankle. Fall of slate.

January 4, 1904, James Dalziel, miner, What Cheer Fuel Company, Keokuk county. Caught under cage. Head bruised and back injured.

January 5, 1904, James Speoe, miner, Illinois and Iowa Fuel Company, Wapello county. Crushed by fall of slate.

January 18, 1904, John Black, gasoline engineer, Consolidation Coal Company, Monroe county. Hand caught in cog wheel. Mashed thumb and first finger off; also bones in wrist so that hand had to be taken off.

January 19, 1904, James Cheves, miner, leg broken by fall of slate in mine of Consolidation Coal Company, Monroe county.

February 12, 1904, R. J. Barber, driver, Consolidation Coal Company, Monroe county. Caught between loaded car and roof. Arm broken.

February 16, 1904, Robert Vaughner, timberman, Consolidation Coal Company, Monroe county. Both legs broken below knees by fall of slate.

March 3, 1904, Joe Melcher, miner, Oskaloosa Coal Mining Company, Mahaska county. Back badly bruised and hip dislocated by fall of slate.

March 4, 1904, Thomas Legon, night driver, Consolidation Coal Company, Monroe county. Was on top of car of timbers when head hit roof. Fracture of skull.

March 6, 1904, S. A. Gantz an electrician, Consolidation Coal Company, Monroe county. Leg broken; fall of slate.

May, 1904, James Smith, miner, Morgan Valley Coal Company, Marion county. He was putting in cut when a piece of sulphur chip struck his eye destroying the sight.

June 1, 1904, Mike Genochis, miner, Bear Creek Coal Company, Wapello county. Badly bruised by fall of slate.

June 2, 1904, E. E. Stuck, miner, Crescent Coal Company, Mahaska county. Head cut and leg bruised by fall of slate.

June 7, 1904, J. C. Jones, miner, Consolidation Coal Company, Monroe county. Foot smashed by fall of slate.

No date, John Coulter, miner, Spring Creek Coal Company, Mahaska county. Ankle bones broken by fall of slate.

June 24, 1904, Roger Griffith, miner, Illinois and Iowa Fuel Company, Wapello county. Crushed by fall of slate.

July 15, 1904, Pete Haney, trapper, arm broken by being caught between car and rib of coal in mine of Dunreath Coal Company, Marion county.

July 11, 1904, William Mason, miner, leg broken by fall of slate in mine of Consolidation Coal Company, Buxton, Monroe county.

August 11, 1904, John Darbollo, track layer, both legs broken by flying coal in mine of Garfield Coal Company, Mahaska county.

August 22, 1904, John Hale, driver, hand mashed by being caught by car in mine of Consolidation Coal Company, Monroe county.

August 23, 1904, Charles Rose, shotfirer, both upper and lower jawbone broken by flying coal in mine of Consolidation Coal Company, Monroe county.

September 1, 1904, G. W. Miller, miner, leg broken by fall of slate in mine of Consolidation Coal Company, Monroe county.

September 17, 1904, Fred Grant, miner, hand mashed by fall of slate in mine of Consolidation Coal Company, Monroe county.

September 27, George Crosby, miner, leg broken by fall of slate in mine of What Cheer Fuel Company, Keokuk county.

September, 1904, Andy Boduar, miner, leg broken by fall of slate in mine of Mammoth Vein Coal Company, Marion county.

October 9, 1904, Sterling Murray, timberman, leg broken by car door falling on him at mine of Consolidation Coal Company of Monroe county.

October 26, 1904, Charles Garland driver, foot mashed by car running over his foot, Consolidation Coal Company, Monroe county.

October 31, 1904, E. L. Shaw, miner, arm broken by flying coal from shot in mine of Consolidation Coal Company, Monroe county.

November 6, 1904, Rees Matthews, miner, cut on head by fall of slate in mine of Ottumwa Brick and Construction Company, Wapello county.

November 6, 1904, David Matthews, miner, body bruised by fall of slate in mine of Ottumwa Brick and Construction Company, Wapello county.

December 1, 1904, Morgan Phillips, miner, leg broken by fall of slate in mine of Ottumwa Brick and Construction Company, Wapello county.

December 26, 1904, Elmer George, miner and driver, leg broken by fall of slate in mine of Ottumwa Brick and Construction Company, Wapello county.

December 12, 1904, C. S. Stone, driver, leg broken by fall of slate in mine of Consolidation Coal Company, Monroe county.

December 17, 1904, Isaac Thomas, miner, internally injured by fall of slate in mine of Consolidation Coal Company, Monroe county.

January, 1905, Hailey Morris, miner, back injured by fall of slate in mine of Lost Creek Fuel Company, Mahaska county.

January 2, 1905, Mike Sirack, cager, foot broken by being run over by car, in mine of Consolidation Coal Company, Monroe county.

January 9, 1905, Mike Brokash, driver, leg broken by being caught by car in mine of Consolidation Coal Company, Monroe county.

January 26, 1905, Sam Rhoder, Jr., miner, collar bone broken by fall of slate in mine of Consolidation Coal Company, Monroe county.

February 6, 1905, Herman Sugar, driver, leg broken by fall of slate in mine of Consolidation Coal Company, Monroe county.

February 6, 1905, T. P. Price, miner, back injured by fall of slate in mine of Phillips Fuel Company, Wapello county.

February, 1905, James Howard, driver, back hurt, fell off chain between car and rib in mine of Mammoth Vein Coal Company, Marion county.

March, 1905, John W. Davis, miner, ribs broken by fall of slate in mine of Mammoth Vein Coal Company, Marion county.

March 14, 1905, Mike Swak, miner, leg broken by fall of slate in mine of Consolidation Coal Company, Monroe county.

April, 1905, Andy Elo, Jr., miner, shoulder dislocated by fall of slate in mine of Mammoth Vein Coal Company, Marion county.

May 4, 1905, George Payton, miner, bruised about the head by fall of slate in mine of Rex Fuel Company, Marion county.

June 9, 1905, Sam Scott, driver, body bruised by being knocked off of car at mine of Raven Coal Company, Mahaska county.

Non-fatal accidents in District No. 2, for two years ending June 30, 1905.

Date.	Name.	Occupation.	Character of Injury.	Cause of Accident.	Mine Where Accident Occurred.	County.
July 18, 1903	Robert Roberts....	Bellman....	Arm broken .....	.....	Consolidation Coal company	Monroe.
July 22, 1903	T. Balzer... ..	Refuse mover....	Hand bruised, necessary to amputate hand	Fall of slate.....	Oriscent Coal Co.	Mahaska.
July 24, 1903	Walter Johnson ..	Coupler	Hand Mashed.....	Fall of slate.....	Consolidation Coal company	Monroe.
August 7, 1903	E. T. Ferrand....	Miner	Broken leg.....	Fall of slate	Illinois and Iowa Fuel company....	Wapello.
August 28, 1903	George Lee	Cager	Broken leg.....	Engineer lost control of engine and cage dropped to bottom of shaft.....	Consolidation Coal company.....	Monroe.
August 28, 1903	John Nichols.....	Miner	Knee dislocated	Engineer lost control of engine and cage dropped to bottom of shaft.....	Consolidation Coal company	Monroe.
August 28, 1903	Elias Swanson....	Miner	Both ankles injured.	Engineer lost control of engine and cage dropped to bottom of shaft.....	Consolidation Coal company	Monroe.
September 22, 1903	J. Spears.....	Miner	Hand crushed	Fall of slate.....	Unconsolidation Coal company	Monroe.
September 28, 1903	C. M. Jones.....	Miner	Body bruised	Fall of slate	Consolidation Coal company	Monroe.
August 28, 1903	Alex Beard	Miner	Fractured ankle.	Engineer lost control of engine and cage dropped to bottom of shaft.....	Consolidation Coal company	Monroe.
September 10, 1903	J. C. Slaughter....	Carpenter.	Arm broken	Fell off scaffold.....	Consolidation Coal company	Monroe.
October 9, 1903	Simon Harris.....	Miner	Fracture of spin	Fall of slate	Illinois and Iowa Fuel company....	Wapello.
October 28, 1903	Sampson Hyde	Coupler	Body crushed.....	Caught by cage....	Consolidation Coal company	Monroe.
October 30, 1903	C. J. Johnson	Miner	Body crushed.....	Fall of slate.....	What Cheer Fuel company	Keokuk.
November 26, 1903	W. H. Millhouse ..	Miner.....	Leg broken	Fall of slate.....	Illinois and Iowa Fuel company....	Wapello.
November 25, 1903	Elijah Miller.	Cager.	Foot mashed.....	Slipped under cage.....	Brown Bros. mine. Consolidation Coal company	Wapello. Monroe.

December 5, 1903	W. W. Carey.....	Driver	Ribs broken.....	.....	Caught by trap door	Consolidation Coal company	Monroe.
December 11, 1903	Richard Graves.	Driver.....	Foot mashed .....	.....	Car ran over foot	Consolidation Coal company	Monroe.
December 14, 1903	A. Meyers. . .	Timberman . . .	Ankle dislocated .....	.....	Fall of slate	Consolidation Coal company	Monroe.
January 4, 1904	James Datzel.	Miner	Back injured.....	.....	Caught under cage	What Cheer Fuel company	Monroe.
January 5, 1904	James Speos. . .	Miner	Body crushed .....	.....	Fall of slate	Illinois and Iowa Fuel company	Keokuk.
January 13, 1904	John Black . . .	Gasoline engineer	Hand mashed .....	.....	Hand caught in cog wheel..	Consolidation Coal company	Wapello.
February 13, 1904	R. J. Barber.....	Driver	Arm broken .....	.....	Caught between loaded car and roof.....	Consolidation Coal company	Monroe.
February 15, 1904	Robert Vaughn...	Timberman . . .	Both legs broken .....	.....	Fall of slate	Consolidation Coal company	Monroe.
March 3, 1904	Joe Melcher.....	Miner	Hip dislocated .....	.....	Fall of slate	Oskaloosa Coal Mining company	Monroe.
March 4, 1904	Thomas Legon.....	Driver.....	Fracture of skull.....	.....	Caught by car	Consolidation Coal company	Mahaska.
March 6, 1904	E. A. Gantz. . .	Electrician	Leg broken .....	.....	Fall of slate	Consolidation Coal company	Monroe.
May, 1904	Jas. Smith	Miner	Sight of one eye destroyed.	.....	Struck by piece sulphur chip	Consolidation Coal company	Monroe.
June 1, 1904	Mike Genochis.	Miner	Badly bruised .....	.....	Fall of slate	Consolidation Coal company	Marion.
June 2, 1904	E. E. Senck	Miner	Head cut and leg bruised.....	.....	Fall of slate	Consolidation Coal company	Wapello.
June 7, 1904	J. C. Jones	Miner	Foot mashed .....	.....	Fall of slate	Consolidation Coal company	Mahaska.
Winter, 1904	John Coulter	Miner	Ankles broken. . .	.....	Fall of slate	Consolidation Coal company	Monroe.
June 24, 1904	Roger Griffith	Miner	Body crushed.....	.....	Fall of slate	Spring Creek Coal company	Mahaska.
July 15, 1904	Pete Haney	Trapper	Arm broken .....	.....	Caught between car and rib	Illinois and Iowa Fuel company	Wapello.
July 11, 1904	Wm. Mason	Miner	Leg broken .....	.....	Fall of slate	Durand Coal Co. Consolidation Coal company	Marion.
August 11, 1904	John L. Carbollo	Tracklayer.....	Both legs broken .....	.....	Flying coal	Consolidation Coal company	Monroe.
August 23, 1904	John Hale	Driver.....	Hand mashed .....	.....	Caught by car. . .	Garfield Coal Co. Consolidation Coal company	Mahaska.
August 23, 1904	Chas. Rose. . .	Miner	Both upper and lower jaw-bone broken .....	.....	Flying coal	Consolidation Coal company	Monroe.
September 1, 1904	G. W. Miller.....	Miner	Leg broken .....	.....	Fall of slate..	Consolidation Coal company	Monroe.
September 17, 1904	Fred Grant	Miner	Hand mashed .....	.....	Fall of slate	Consolidation Coal company	Monroe.
September 27, 1904	Geo. Crosby	Miner	Leg broken .....	.....	Fall of slate	What Cheer Fuel company	Monroe.
September, 1904	Andy Boduar.....	Miner	Leg broken .....	.....	Fall of slate	Memmoth Vein Coal company	Keokuk.
							Marion.

NON-FATAL ACCIDENTS—CONTINUED.

Date.	Name.	Occupation.	Character of Injury.	Cause of Accident.	Mine where Accident Occurred.	County.
October 9, 1904	Sterling Murray.	Timberman	Leg broken	Car door fell on him.		Monroe.
October 26, 1904	Chas Garland.	Driver	Foot mashed.	Car ran over foot.		Monroe.
October 31, 1904	E. L. Shaw	Miner	Arm broken	Flying coal		Monroe.
November 6, 1904	Rees Matthews.	Miner	Cut on head	Fall of slate		Wapello.
November 6, 1904	David Matthews.	Miner	Body bruised	Fall of slate		Wapello.
December 1, 1904	Morgan Phillips	Miner	Leg broken	Fall of slate.		Wapello.
December 24, 1904	Elmer George.	Miner	Leg broken	Fall of slate.		Wapello.
December 12, 1904	C. S. Stone	Driver.	Leg broken	Fall of slate.		Wapello.
December 12, 1904	Isaac Thomas	Miner	Internally injured.	Fall of slate		Monroe.
January, 1905	Halley Morris.	Miner	Back injured.	Fall of slate		Monroe.
January 2, 1905	Mike Strack	Oager	Bones of foot broken	Run over by car.		Mahaska.
January 9, 1905	Mike Brokash	Driver.	Leg broken	Caught by car.		Monroe.
January 26, 1905	Sam Rhodes, Jr.	Miner	Collar bone broken	Fall of slate		Monroe.
February 6, 1905	Herman Sugar	Driver	Leg broken	Fall of slate.		Monroe.
February 6, 1905	T. P. Price	Miner	Back injured.	Fall of slate		Monroe.
February, 1905	Jas Howard.	Driver.	Back hurt.	Squeezed between car and rib of coal.		Wapello.
March, 1905	John W. Davis	Miner	Ribs broken	Fall of slate		Marion.
March 14, 1905	Mike Swak.	Miner	Leg broken	Fall of slate		Marion.
April, 1905	Andy Elo, Jr.	Miner	Shoulder dislocated	Fall of slate		Monroe.
May 4, 1905	Geo. Payton.	Miner	Bruised about head.	Fall of slate		Marion.
June 9, 1905	Sam Scott	Driver	Body bruised.	Knocked off car	Raven Coal Co.	Mahaska.

MAHASKA COUNTY.

Mahaska, for years the leading coal county of the State but which for the past five years has shown a decrease in its production, is again coming to the front with new mines that are well equipped with the latest improved machinery, and these mines give every assurance of an increase in the production the coming year.

This county has still a large and undeveloped coal area and with the new mines already opened and under construction will again forge to the front.

The Garfield Coal Company has opened a new slope, No. 3, two miles west of Beacon; also one two and one-half miles southwest of Evans. This shaft is sunk in a new field of coal with four or five hundred acres proven to be underlaid with a thick seam. This shaft will be equipped with modern machinery and will have a capacity of about 1,000 tons daily.

Mr. William Cricket has a shaft in the vicinity of White City, which is equipped to hoist a large tonnage.

Bolton & Hoover Coal Company of Bolton is a new mine with Mr. J. W. Cauty in charge, and this mine is a good producer. The Union Coal company, two miles north of Buxton, has a new mine located on the North-Western railroad. The National Union Coal company, located three and one-half miles southwest of Beacon, is a new mine on the C., R. I. & P. railway.

This county produced for the biennial period ending June 30, 1905, 1,206,837 tons of coal

There were five fatal and seven non-fatal accidents reported from the mines of this county during the past two years.

MONROE COUNTY.

But a very small portion of this county is included in the Second District, the county properly being a part of the First District, but on account of that portion of the county lying north and east of the C., B. & Q. railroad being so difficult for the inspector in the First District to reach by railroad, and the tonnage decreasing so rapidly in the Second District to make the districts more equal the county was divided as above. The portion of the county in the Second District includes the mines of the Central Coal Company at Lockman, the Miller Creek Coal Company with mines near Coal-field, and the Consolidation Coal Company with mines near Buxton. This last is one of the largest companies in the State, and they are now operating four large mines in the vicinity of Buxton and are at present engaged in opening up a fifth, and this last one gives evidence of being a large producer. This company has the best equipped and best ventilated mines in the State. For the two years ending June 30, 1905, this company produced more than a million and a half tons of coal.

The Central Coal Company located near Lockman also does an extensive shipping business. The Miller Creek Coal Company have mines near Coal-field and do a good business.

WAPELLO COUNTY.

This county has steadily increased the output of coal for the last ten years, and in this last biennial period has produced 691,212 tons. The coal in this county is fine for steam and domestic purposes and the seam varies from three and one-half to five feet in thickness.

Mr. George Ramsay, of the Garfield Coal Company of Mahaska county, has prospected a coal field about three and one-half miles north of Ottumwa. The results were very favorable and this company will open and equip a mine for a large tonnage.

C. A. Hoover of Oskaloosa is prospecting south of Ottumwa some four miles, on a large tract of land, and Henry Phillips is drilling north and east of Rutledge, while the Jones Bros. are drilling north of the present mine they are operating.

There are fifteen mines in this county; five of these are shipping mines located on the Chicago, Burlington & Quincy Railroad, the Chicago, Rock Island & Pacific Railroad and the Milwaukee Railroad.

The reports coming to this office would indicate that several new mines will be opened up in the near future.

There were twelve non-fatal accidents reported from the mines of this county for the biennial period ending June 30, 1905.

MARION COUNTY.

This county has been a large coal producer for many years and is constantly increasing its coal tonnage. The coal measures that are now worked are among the thickest in the State, ranging from four to twelve feet in thickness, and found at a depth of from fifty to 150 feet.

The principal field is now worked by the Mammoth Vein Coal company, who, by the way, are the pioneer coal men in this county. This company, in addition to their No. 5 mine, has in the last two years opened up three large slopes. Two of them will have steam power, and the other one in addition to their No. 5 mine will be equipped with electric haulage. When these mines are fully developed this company will be one of the largest coal producers in the State.

There are at present numerous drilling machines at work and the results from this prospecting seem to be satisfactory, as new companies are buying large tracts of land with a view to opening mines, and other large companies are constantly adding to their already large holdings.

Several small openings have been made in various parts of the county which will mine coal through the fall and winter months, and furnish employment to a number of men.

VAN BUREN COUNTY.

This is another of the small coal producing counties of the State. The mines are located in the vicinity of Douds Station, and in and near Farmington.

Findlay & Son have operated mines very profitably for a number of years about two miles north of Douds Station. They haul the coal produced to Douds Station in wagons and deliver the same to the C., R. I. & P. Railway company, who handle their entire output. By reason of their having a contract with the railroad company they are able to operate their mines the entire year. The Ratcliff Coal Company, also located north of Douds, supply coal to the Rock Island road, delivering it in wagons, and they operate the entire year.

A number of small mines located near Douds and near Farmington do a good business supplying the local trade during the fall and winter months. The coal in this county is of a good quality and the veins run from three to four feet in thickness.

KEOKUK COUNTY.

This county at one time enjoyed the distinction of being one of the large coal producing counties of the State, but of late years the coal production of this county has become less and less each year, until now it produces less than one-fourth what it did ten years ago, and unless new fields are opened soon it will not be long until it will cease to be classed with the coal producing counties of the State. Whereas, in former years hundreds of thousands of tons of coal were shipped from this county, now the business is for the most part local and the small mines are operated only during the fall and winter months. For the year ending June 30, 1894, this county produced 215,625 tons of coal, and ten years later (1904) the production had fallen to 52,375 tons, and each year this tonnage will be less as no new mines are being developed and the older ones are being worked out and abandoned.

The coal production of this county for the two years ending June 30, 1905, was 70,566 tons. One fatal and two non-fatal accidents were reported from the mines of this county during the biennial period ending June 30, 1905.

DAVIS COUNTY.

But little coal is mined in this county, but what is produced is of a very good quality, the vein averaging about three feet in thickness. The most of the operations of mining are confined to the vicinity of Laddsdale, Lunsford and Belknap and one mine is located near Floris.

It has been reported to this office that a coal mining company was recently organized at Bloomfield. This company has drilled several prospect holes near Belknap and have found a good vein of coal averaging three and one-half feet in thickness. Preparations are being made to open a mine and equip it for a good tonnage.

No fatal or non-fatal accidents were reported from the mines of this county during the past two years.

Possibly at some time in the future this county will produce much more coal than it does now, as this county joins Appanoose county, which is one of the best producing counties in the State.

WARREN COUNTY.

The coal tonnage in this county runs from ten to fifteen thousand tons yearly. The larger mines of the county are located near Somerset. But two of these do a shipping business. Most of the mines of the county are purely local and are in operation only during the fall and winter months. A few mines are operated near Milo, some near Liberty Center, and some near Lacona.

Owing to the fact that the railroad facilities are not the best in this county partly explains the small production of the county. With the advent of more railroads in the county a larger tonnage will be mined, as there is no doubt but what there is considerable land underlaid with coal in the county.

Two different seams have been worked; the upper seam is about three feet thick and is worked long-wall, the lower seam is somewhat thicker and is worked on the room and pillar plan.

This county produced for the biennial period 20,120 tons of coal. No fatal or non-fatal accidents were reported from the mines of this county during the past two years.

JEFFERSON COUNTY

The production of coal in this county is very limited. While coal has been mined in the county for a number of years, operations have not been extensive as the demand is purely local. There are a number of small mines south and west of Fairfield that do a very profitable business during the fall and winter months in supplying the local demand of Fairfield and other towns in the county. The Perlee Fuel company have recently opened a new mine near Perlee, and the outlook for the mine is good. The coal in this county is about three and one-half feet in thickness and generally free from impurities. No accidents were reported from the mines of this county during the past two years.

LIST OF COMPANIES, SUPERINTENDENTS, ETC., IN SECOND DISTRICT.

MAHASKA COUNTY.

STATE MINE INSPECTORS.

75

Name of Company.	Superintendent.	Postoffice Address.	Shaft or Slope.	Plan of Working.	How Ventilated.	Power Used.	Shipping or Local.
Harry Little Coal company.	Harry Little.	Pekay.	Slope.	Room and pillar.	Furnace.	Horse.	Local.
A. E. Black Coal company.	A. E. Black.	Bacon.	Shaft.	Room and pillar.	Jet.	Horse.	Local.
Morrow Coal company.	Jas. Neagle.	Oakaloosa.	Shaft.	Room and pillar.	Fan.	Steam.	Shipping.
	J. H. Ramsay.	Oakaloosa.	Shaft.	Room and pillar.	Fan.	Steam.	Shipping.
	E. F. Williams.	New Sharon.	Slope.	Room and pillar.	Fan.	Horse.	Local.
	N. J. Kiesick.	Oakaloosa.	Shaft.	Room and pillar.	Furnace.	Steam.	Shipping.
	J. M. Timbrell.	Lost Creek.	Shaft.	Room and pillar.	Fan.	Steam.	Shipping.
	J. H. Smith.	Oakaloosa.	Shaft.	Room and pillar.	Fan.	Steam.	Shipping.
	R. Harowman.	Oakaloosa.	Sh. ft.	Room and pillar.	Furnace.	Horse.	Local.
	John Price.	Eveland.	Shaft.	Room and pillar.	Fan.	Steam.	Shipping.
	M. J. Ward.	Bacon.	Shaft.	Room and pillar.	Fan.	Steam.	Shipping.
	Jesse Swan.	Eddyville.	Slope.	Room and pillar.	Furnace.	Horse.	Local.
	J. H. Sowden.	Oakaloosa.	Shaft.	Room and pillar.	Furnace.	Horse.	Local.
	W. W. Crockett.	Buxton.	Shaft.	Room and pillar.	Fan.	Steam.	Shipping.
	John Oatby.	Bolton.	Slope.	Room and pillar.	Fan.	Steam.	Shipping.
	Jas. Chew.	White City.	Shaft.	Room and pillar.	Fan.	Steam.	Shipping.
	John Ross.	Oakaloosa.	Shaft.	Room and pillar.	Fan.	Horse.	Local.
	W. A. Duffee.	Buxton.	Shaft.	Room and pillar.	Fan.	Steam.	Shipping.
Whitebreast Fuel company.	Owen Reese.	Pekay.	Shaft.	Room and pillar.	Fan.	Steam.	Shipping.
Kennebec Coal company.	A. Love.	Muchakinock.	Slope.	Room and pillar.	Furnace.	Horse.	Local.
Schultz Coal company.	Fred Schultz.	Oakaloosa.	Shaft.	Room and pillar.	Furnace.	Horse.	Local.
Bacon Coal company.	Andrew Larson.	Bacon.	Slope.	Room and pillar.	Furnace.	Horse.	Local.

MARION COUNTY.

Name of Company.	Superintendent.	Postoffice Address.	Shaft or Slope.	Plan of Working.	How Ventilated.	Power Used.	Shipping or Local.
.....	Thos. Hayes.....	Knoxville.....	Slope.....	Room and pillar.	Stove.....	Horse.....	Local.
.....	A. J. Booth.....	Flagler.....	Shaft.....	Room and pillar.	Stove.....	Horse.....	Local.
.....	J. F. Bunting.....	Flagler.....	Slope.....	Room and pillar.	Furnace.....	Horse.....	Local.
.....	Jas. A. Jones.....	Hamilton.....	Shaft.....	Room and pillar.	Fan.....	Steam.....	Shipping.
.....	Jno. B. Dielman.....	Pella.....	Shaft.....	Room and pillar.	Fan.....	Steam.....	Local.
.....	J. M. Ollive.....	Harvey.....	Shaft.....	Room and pillar.	Natural.....	Horse.....	Local.
No. 5.....	J. A. J. Powers.....	Hamilton.....	Shaft.....	Room and pillar.	Fan.....	Steam.....	Shipping.
No. 7.....	J. A. J. Powers.....	Hamilton.....	Shaft.....	Room and pillar.	Fan.....	Steam.....	Shipping.
No. 9.....	J. A. J. Powers.....	Hamilton.....	Shaft.....	Room and pillar.	Fan.....	Horse.....	Shipping.
No. 10 & 11.....	J. A. J. Powers.....	Hamilton.....	Slope.....	Room and pillar.	Furnace.....	Horse.....	Shipping.
.....	S. R. Rawlings.....	Unreathed.....	Shaft.....	Room and pillar.	Fan.....	Steam.....	Shipping.
.....	Robt. Hunter.....	Hamilton.....	Slope.....	Room and pillar.	Furnace.....	Horse.....	Local.
.....	S. P. Paaca.....	Hamilton.....	Shaft.....	Room and pillar.	Furnace.....	Steam.....	Shipping.
Schnitz & Sneider Coal company.....	Schnitz.....	Hamilton.....	Drift.....	Room and pillar.	Furnace.....	Horse.....	Local.
American Coal Company No. 7.....	Flagler.....	Flagler.....	Slope.....	Room and pillar.	Jet.....	Steam.....	Shipping.
Davis Bros. Coal company.....	Jas. A. Wilson.....	Harvey.....	Slope.....	Room and pillar.	Grate.....	Horse.....	Local.
Hawkeye Coal company.....	L. Davis.....	Knoxville.....	Slope.....	Room and pillar.	Fan.....	Steam.....	Shipping.
Bawalds Bros. Coal company.....	D. Phillips.....	Pella.....	Shaft.....	Room and pillar.	Steam Jet.....	Steam.....	Local.
Morgan Valley Coal company.....	J. Buwalda.....	Morgan Valley.....	Shaft.....	Room and pillar.	Fan.....	Steam.....	Shipping.
Hawkeye Coal company.....	.....	Knoxville.....	Shaft.....	Room and pillar.	Fan.....	Steam.....	Shipping.
Yonkon Coal company.....	L. E. Phillips.....	Otley.....	Slope.....	Room and pillar.	Furnace.....	Horse.....	Local.
.....	J. B. Vrieselaar.....	.....	.....	.....	.....	.....	.....

WAPELLO COUNTY.

.....	A. J. Erskin.	Ottumwa	Shaft	Room and pillar.	Fan	Steam	Shipping.
.....	Willis Grooms.	Ottumwa	Shaft.	Room and pillar.	Furnace	Horse	Local.
.....	Jas. Flanders.	Ottumwa	Slope.	Room and pillar.	Fan	Steam	Local.
.....	W. R. Damm	Ladledale	Shaft.	Room and pillar.	Fan	Steam	Shipping.
.....	Chas. Brown.	Keb	Shaft.	Room and pillar.	Fan	Steam	Local.
company.	D. J. Lloyd	Ottumwa	Shaft.	Room and pillar.	Fan	Steam	Local.
.....	Wm. Foalka.	Willard	Shaft.	Room and pillar.	Fan	Steam	Local.
.....	J. F. Lilly	Ottumwa	Shaft.	Room and pillar.	Furnace	Horse	Local.
.....	David Jones.	Ottumwa	Shaft.	Room and pillar.	Fan	Steam	Local.
.....	A. D. Lumsden	Ottumwa	Shaft.	Room and pillar.	Fan	Steam	Shipping.
.....	Edward Styer.	Ottumwa	Shaft.	Room and pillar.	Fan	Horse	Local.
.....	Jacob Allen	Bear Creek	Slope.	Room and pillar.	Fan	Steam	Shipping.
.....	J. Waddle	Ottumwa	Slope	Room and pillar.	Furnace	Horse	Local.

KEOKUK COUNTY.

MONROE COUNTY.

Central Coal Company No. 1.	T. L. Evans	Lockman	Slope.	Room and pillar.	Furnace	Steam	Shipping.
Central Coal Company No. 2.	T. L. Evans	Lockman	Slope.	Room and pillar.	Furnace	Horse	Shipping.
Consolidation Coal Company No. 10.	B. C. Buxton	Buxton	Shaft.	Room and pillar.	Fan	Steam	Shipping.
Consolidation Coal Company No. 11.	B. C. Buxton	Buxton	Shaft.	Room and pillar.	Fan	Steam	Shipping.
Consolidation Coal Company No. 12.	B. C. Buxton	Buxton	Shaft.	Room and pillar.	Fan	Steam	Shipping.
Consolidation Coal Company No. 13.	B. C. Buxton	Buxton	Shaft.	Room and pillar.	Fan	Steam	Shipping.
Ackers Coal company.	Jas. Boden	Coalfield	Slope.	Room and pillar.	Furnace	Horse	Shipping.
Miller Creek Coal company.	.....	Coalfield	Drift	Room and pillar.	Fan	Steam	Shipping.

VAN BUREN COUNTY

WARREN COUNTY.

Name of Company.	Superintendent.	Postoffice Address.	Shaft or Slope	Plan of Working	How Ventilated.	Power Used.	Shipping of Local.
Diamond Coal company.....	Bert W. Williams..	Lacona.....	shaft.....	Room and pillar.	Furnace..	Horse	Local.
Bryant Coal company.....	B. O. Bryant.....	Milo.....	Shaft.....	Room and pillar.	Furnace..	Horse	Local.
Somersett Coal company.....	R. W. Earle.....	Somersett.....	Shaft.....	Room and pillar.	Fan.....	Horse	Shipping.
Uttersen & Milligan.....	D. L. Uttersen.....	Carlisle.....	Shaft.....	Long wall.....	Furnace..	Horse	Local.
Bales Coal company.....	M. D. Bales.....	Milo.....	Shaft.....	Room and pillar.	Furnace..	Horse..	Local.

JEFFERSON COUNTY.

DAVIS COUNTY.

J. M. Sickle Coal company.....	J. M. Sickle.....	Florida, R. F. D. No. 2.....	Slope.....	Room and pillar	Furnace..	Horse..	Local.
Big Diamond Coal company.....	A. O. Lunsford.....	Lunsford.....	Shaft.....	Room and pillar	Furnace..	Horse..	Local.
C. D. Sharp mine.....	C. D. Sharp.....	Laddsdale.....	Shaft.....	Room and pillar	Furnace..	Horse..	Local.

TABLE No. 1.

Showing number of mines, output of coal, number of miners and other employees in District No. 2, for year ending June 30, 1904.

Name of County.	Number of mines.	Amount of coal of all kinds produced.	Number of miners employed.	Number of other inside employees.	Number of outside employees.	Total number of employees.
Mahaska	14	580,428	872	226	150	1,248
Warren	5	10,637	42	8	9	59
Keokuk	2	52,375	80	28	19	127
Van Buren	6	17,844	83	5	15	58
Marion	18	846,629	581	144	81	806
Monroe	7	690,427	902	879	152	1,483
Jefferson	1	875	8	0	1	4
Davis	1	125	4	4	1	9
Wapello	12	823,183	581	154	106	791
Total.....	72	1,972,528	3,048	948	584	4,580

TABLE No. 2.

Showing number of mines output of coal, number of miners and other employees in District No. 2, for year ending June 30, 1905.

Name of County.	Number of mines.	Amount of coal of all kinds produced.	Number of miners employed.	Number of other inside employees.	Number of outside employees.	Total number of employees.
Mahaska	22	676,409	1,071	289	149	1,509
Warren	5	9,483	48	11	9	68
Keokuk	6	18,191	28	8	7	44
Van Buren	6	12,648	24	5	15	44
Marion	19	872,855	601	159	80	840
Monroe	7	987,770	1,114	385	97	1,548
Jefferson	2	2,050	9	1	2	12
Davis	3	1,115	11	6	4	21
Wapello	12	368,029	665	149	106	910
Total.....	82	2,448,550	3,572	963	459	4,994

THIRD DISTRICT.

LETTER OF TRANSMITTAL.

HON. ALBERT B. CUMMINS, Governor of Iowa.

Sir,—I have the honor to submit herewith the report of the Third Inspection District, covering the biennial period ending June 30, 1905.

Very respectfully,

EDWARD SWEENEY,

Inspector Third District.

REPORT OF THIRD DISTRICT.

This district includes the following counties as producers of coal: Polk, Jasper, Boone, Webster, Greene, Dallas, Guthrie and Scott.

It is difficult to determine the whole number of mines producing coal within the territorial jurisdiction of the Third Inspection District, as there are so many small openings in the district that employ from one to three men. Such places produce some coal, but to secure data as to tonnage is almost impossible. There are, however, more than sixty shipping mines in the counties above named, and over one hundred mines covered by observation of the entire district. There have been opened, developed, or under construction during the biennial period twenty-six mines. Several more are in contemplation. Twenty-nine mines have been abandoned in the district during the biennial period. These were mostly small local mines employing during the fall and winter months from four to ten men.

WORK AND WAGES.

Although the mines of the district have not worked steadily the past few months, yet the fact remains that the tonnage of the district has increased materially and during the past year there has been mined in the district more than 2,000,000 tons of coal, an excess, as shown by the tables, over what has been mined in former years. This increased tonnage is due to the fact that many more miners were employed during the past year in the mines of the district than were ever employed before.

During the month of April, 1904, all the coal mines of the State were idle for about three weeks, owing to a difference of opinion as to terms of the wage scale agreement which, however, was amicably adjusted, thanks to the good sense and business judgment of our miners' officers and operators' association, and the wages in our mining industry will remain stable and unchanged until April 1, 1906. The rate is satisfactory and good, compared with other industries; in fact it is generally conceded that our coal miners have a wage scale and employment conditions that are suggestive of intelligent conservatism in the management of their organization and negotiations with the Iowa coal operators. It is an evidence of intelligence and honesty in the joint wage movement existing between our coal operators and coal miners that merits consideration.

Work has been dull for several months and the mine workers net earnings have diminished accordingly. The Iowa coal operator requires a close vigilance to stay the crowding encroachments of cheap coal produced in eastern fields, where nature has favored the mine owner with a thick coal which is usually easily mined.

POLK COUNTY.

Polk county ranks as the second coal producing county in the State of Iowa; the first in the State being Monroe county, situated in the southeastern part of the State. The future prospects of Polk county in the coal business are bright, owing to the fact that there were recently opened up, several new mines, which will be large coal producers and do a large shipping business when fully developed. The majority of these new mines are equipped with the latest improved machinery which will facilitate the handling of a large tonnage, and these new mines will give employment to several hundred more men. There has also been a great deal of prospecting going on in this county within the past few months, and if reports are correct, it will be a question of only a short time until Polk will be the leading coal county in the State.

There are more than thirty coal producing mines in Polk county at the present time and a number of these have a capacity of from 500 to 700 tons per day. Out of the above number of mines there are ten or fifteen which depend entirely on local trade throughout the fall and winter months and do a very profitable business at this season of the year.

The coal fields in Polk county start in the southeastern part of the county and extend as far north as Enterprise. The majority of the mines are within a radius of six miles of the court house. While there is considerable coal shipped into Des Moines for local consumption, at the same time we have several large railroad mines that ship their entire output to the north and west and do not supply any coal for local consumption. In fact several thousand more tons of coal are mined here each year than could possibly be used in Des Moines and Polk county.

The increased growth of the manufacturing business in Des Moines has had much to do with the development of the coal industry of Polk county. Many manufacturing establishments are here; others are coming, for they realize the value of good railroad facilities and plenty of good fuel right at hand, and these Des Moines and Polk counties have to offer. This influx of manufacturing establishments offers an incentive to coal operators to develop this field, and we look for an increased growth in the coal industry the coming year.

Two fires have occurred in this county during the biennial period. On the night of August 13, 1904, fire destroyed the shaft house and a portion of the dump trestle of the Coaldale Fuel Company, burned two cars of coal standing on the track near the mine, a large amount of valuable machinery, and resulted in throwing about 150 men out of employment until the shaft house was rebuilt. The property loss approximated close to ten thousand dollars.

On November 19, 1904, fire destroyed the engine and boiler house of the O. K. Coal Company, located north of Des Moines, entailing considerable of a loss.

NEW MINES OPENED.

The West Riverside Coal Company has opened up a new mine known as No. 2, on the Interurban Railroad northwest of Des Moines, and about one-

half mile east of their No. 1 shaft. This mine is being equipped with modern machinery and when fully developed will give employment to 150 or 200 miners.

Walnut Creek Coal Company mine is located southwest of the city of Des Moines and has railroad connections with the C., M. & St. Paul Railroad. This mine when fully equipped will employ from fifty to seventy-five men.

The Bennett Bros., old and experienced coal men, have opened up a large mine southwest of Des Moines. The mine is well equipped and will furnish employment to over 100 men.

The Maple Block Coal Company has opened by shaft a new mine known as No. 2, located northeast of Des Moines. This is a good property and is sure to figure prominently in the coal business of Iowa for a long period of years. Some 150 miners are employed and shipping is done over the Rock Island railroad. The machinery and equipment are first class, and the management very capable men.

The Hollingsworth Coal Company of Des Moines has recently sunk a shaft 7 x 14 feet in size and 156 feet deep. The location is about three and one-half miles southwest of Des Moines. The coal is from four to five feet in thickness and is of a good quality. Several hundred acres of coal was proven ere sinking was commenced. This is sure to prove a valuable property and ought to be good for a number of years.

The Deer Creek Coal Company mine is located about a mile and a half from the Enterprise mine, along the same line of railroad. This mine is equipped to handle a large tonnage. The company has also erected a large number of houses to accommodate their employes.

BOONE COUNTY.

Boone county ranks second in coal production in the Third District, its output for the year ending June 30, 1904, being 345,472 tons, and for the year ending June 30, 1905, 421,802 tons, making a total of 767,274 tons for the biennial period. This production shows a net gain of 192,919 tons of coal over the preceding biennial period.

There are seventeen mines in operation in this county, with an annual output of more than 350,000 tons of coal. All of these mines but three are shipping mines and are operating fairly regular during the entire year.

The coal measures of Boone county extend north and south across the entire county, along the Des Moines river. The principal mining, however, is done around Fraser and Boonsboro, in the north and central portions of the county. Some small mines are in operation in the southern part of the county, but little mining is done. Formerly there was a great deal of coal mined in the vicinity of Angus, and while the vein there ranges from four to six feet in thickness there is usually a large volume of sand and water overlaying a thin strata of slate, making a bad roof, and the coal can not be mined at a profit.

The coal in Boone county is of an excellent quality for commercial purposes and is found at depths varying from thirty to two hundred and fifty feet.

The mines around Boonsboro have direct connection with the main line of the Chicago & Northwestern railroad, while the mines at Fraser connect with the Newton & Northwestern, and the Minneapolis and St. Louis lines running north; thus affording excellent facilities for the shipment of coal into the territory where no coal is produced. The smaller mines not doing a shipping business supply the local demand only and are usually operated through the fall and winter months.

This county has for years been a large producer and will continue to be for many years to come. While the vein is not as thick as in the central part of the Iowa coal field, yet it is of a uniform thickness and of a good quality and is said to be mined at a profit to both the operator and the miner.

There has been a great deal of prospecting done recently west of Boone, and reports coming to the inspector's office would indicate that there will be some new openings in this field in the near future.

Among the largest coal producers in this county, are the Boone Valley Coal & Railroad Company, which operates four shafts and one slope near Fraser and produce nearly one-third of the entire tonnage of the county. The W. D. Johnson Coal Company, the Crowe Coal Mining Company, the Heaps & Crowe Coal Company, the Rogers Coal Company and the Heaps Coal Company. These latter are located near Boonsboro.

The condition of the mines in Boone county have been much improved in late years, especially with regard to ventilation, safety catches, and covers on the cages, and other safety appliances, escape shafts and better traveling ways.

There were two fatal and six non-fatal accidents reported from this county for the biennial period ending June 30, 1905.

JASPER COUNTY.

Jasper county produces annually over 300,000 tons of coal, being the third largest coal producing county in the Third District. Coal has been mined in this county for more than forty years. Veins of coal in this county run from three to six feet in thickness.

The Colfax Consolidated Coal Company's mines are among the largest in the State. This company operates two large mines, Nos. 6 and 7, the former located three miles south of Colfax, and the latter at Seevers, four miles from Colfax. They are now opening another mine, No. 8, and this new mine will be connected with the switch running up to No. 7 mine. They are equipping their No. 8 with the latest and best machinery, and when the mine is fully developed it will be one of the largest coal producers in Jasper county and will rank among the best in the State.

Three miles south of Newton is the oldest mining field in the county and mining operations are still carried on there. At present four good local mines are operated, viz., Snooks, Listers, Carsons and French. They employ from six to fifteen miners each during the fall and winter months and the coal from these mines is sold locally and in Newton. There is also the

Worrick Bros. Coal Company of Colfax with an output of about 5,000 tons per year, and the C. M. Norris Company of Prairie City with a lesser production. Other small mines employing from two to six men in the winter months are located at different parts of the county. All the mines in this county are worked on the room and pillar plan and furnish employment to about 700 miners and other workmen.

The Diamond Coal Company opened up a new mine the fall of 1904. This mine is located one and one-half miles northeast of Mitchellville and is a shaft opening, 128 feet deep. The vein is about four feet in thickness of a very good quality. The mine will depend on local trade entirely as they do not have railroad connections.

There were two fatal and seventeen non-fatal accidents in the mines in this county during the past two years.

WEBSTER COUNTY.

Webster county with fifteen mines in operation produces annually about 160,000 tons of coal. Nine of these mines do a shipping business and six supply the local demand only. Nearly 500 men are furnished employment.

The principal coal fields in this county are located near Lehigh, Coalville and Kalo. Owing to the fact that Webster county occupies the extreme northern part of the Iowa coal fields gives to the county an excellent market for its output in the counties north and west.

The mines at Lehigh, Kalo and Coalville have connection with the main line of the Chicago Great Western Railway, running north. The mines at Lehigh also have connection with the Crooked Creek Railroad, which runs to Webster City and connects with the main line of the Illinois Central, running east and west.

The local mines usually start mining operations about the first of September and run only through the fall and winter months. The coal in this county varies in thickness from two and one-half to four feet, and is found at depths varying from sixteen to one hundred feet, beneath the surface. The quality of the coal is good and the mines are generally well equipped and in good condition.

Two accidents, one fatal and one non-fatal, occurred in the mines of this county during the biennial period ending June 30, 1905.

GUTHRIE COUNTY.

There are a number of small mines in this county, the majority of them being located near Fansler, Bayard and Panora. The Raccoon river runs diagonally across the county and most of the mines are located near the river. None of these mines are large and most of them are too far from the railroads to do a shipping business and they are, therefore, purely local mines employing from five to twenty-five miners during the fall and winter months. The majority of these mines commence taking out coal about the first of September, as that is about the time the local trade begins, and they continue to operate until spring when they shut down till fall again.

On account of lack of shipping facilities the mining of coal has not been developed to any great extent, yet I believe the time is not far distant when the county will produce much more coal than is needed for home consumption. The coal vein in this county does not run as thick as the coal vein in other parts of the State, yet it is easily mined and should be handled at a profit to the operator.

The mines in this county vary in depth from fifty to one hundred and twenty feet and the majority of the shaft mines are operated by horse power, while the miners in the drift mines push their coal out. There were 58,769 tons of coal produced in this county the past two years, and this is a decided increase over the tonnage of former years. But few of the mines make the necessary improvements to store coal ready for the extra demand during the winter months and as a consequence there are many times when the local demand can not be satisfied, and much business is thus lost to the operators.

The mines of this county are all worked on the long-wall system of mining, and the natural conditions favor this method of mining. The coal thus mined is nearly all lumps and is of a good quality, being very hard, bright, and a free burner. I believe with good railroad facilities this coal could be produced as cheaply as in any other part of the State.

On my first tour of inspection of this district I found many of the mines with but one opening. I immediately ordered that the number of men working under such conditions be reduced to four to comply with section 2486 of the State mining laws, until the second opening was made. A number of the companies immediately started to sink escape shafts, while others simply complied with the law by reducing the number of men employed and running on a smaller scale. For the most part the conditions existing in the mines of this county were found to be satisfactory, as regards sanitary conditions, general safety appliances, etc.

No fatal or non-fatal accidents were reported from this county during the past two years.

GREENE COUNTY.

But six mines are now in operation in this county, three of which are located at Angus, two at Rippey, and one at Grand Junction. The entire output from these mines is about 18,000 tons yearly. Most of the coal mined is found in the southeastern part of the county, and the coal in this field generally lays near some creek tributary to the north branch of the Raccoon river. There has been a decrease in the production of coal in this county in recent years. Only about one sixth of the former tonnage is mined as compared with that of twenty years ago.

The Keystone Coal Company of Angus is the largest producer in the county at present and it has an annual output of about 7,000 tons. Next comes the Michael Feith mine of Angus with a tonnage of 6,000 annually. Following these are the mines of the Goodwin Coal Company of Grand Junction, the Ditchburn Coal Company of Angus, the Willow Grove Coal Company of Angus and the Snake Creek Coal Company of Rippey. This latter is a new mine opened during the fall of 1904.

The Keystone Coal Company employs from twenty to twenty-five men, and the other companies from eight to twenty each. The Goodwin Coal Company does some shipping. The others run during the fall and winter months, only, and supply the local demand.

But two accidents, one fatal and one non-fatal have been reported from this county during the past two years.

SCOTT COUNTY.

Scott county is located in the eastern part of the State and is a river county. The first coal was mined here more than half a century ago, the principal mines being located in the vicinity of Buffalo and Jamestown, in the southern part of the county.

The coal lies in pockets and is worked by shaft openings at the depth of from fifty to seventy feet. It is hoisted to the surface by the gin method. The seams are from two and one-half to three feet in thickness. Most of the coal in this county is mined by the pick method and after being mined is wedged down, no powder being used.

The important mines in the county are: The Long mine, operating near Jamestown and employing from ten to fifteen men, with an annual output of about 2,000 tons. The Sass Bros. Coal Company near Jamestown employ from eighteen to twenty men and have an annual output of 3,500 tons. The Langwith Coal Company near Jamestown employ from eight to ten men and produce about 2,500 tons annually. Carlin & Buchmeyer near Jamestown employ from twelve to fifteen men and have an output of about 3,500 tons annually.

These mines do not do a shipping business as they are not located on a railroad, and most of the coal is sold at the mines locally, and the balance is delivered by wagons to Davenport and sold there. The coal is of good

quality and is sold at a good price. All the mines in this county have a second opening and are ventilated by furnaces, which supply sufficient ventilation for all requirements.

There were no accidents from the mines of this county reported to this office.

DALLAS COUNTY.

The coal measures in this county are about the same as in Guthrie county, but not so many mines are in operation. The leading mines are those of the Hutchison Bros. at Dawson, and of the Reese Bros. at Madrid. The former are operating a mine two miles west of Dawson. The depth of the main shaft is eighty feet, and thickness of the vein worked about three and one-half feet. This mine is equipped with steam power and is ventilated with a fan. The output of this mine is about 6,000 tons per year.

The Reese Bros. are operating two mines about six miles south of Madrid. Their mines are also equipped with steam power, and they have a tonnage of about 7,000 per year. Other mines are those of the Vernon Coal Company and William Knox operating mines near Madrid. The Mills Coal Company also operate a small mine near Linden. The mine at Van Meter, formerly one of the largest coal producers in the county, has been closed down for some time. There were two non-fatal accidents reported from this county during the biennial period ending June 30, 1905.

LIST OF COMPANIES, SUPERINTENDENTS, ETC., IN THIRD DISTRICT.

STATE MINE INSPECTORS.

93

POLK COUNTY.

Name of Company.	Superintendent.	Postoffice Address.	Shaft or Slope.	Plan of Working.	How Ventilated.	Power Used.	Shipping or Local.
.....	Chas. Morris.	Des Moines.	Shaft.	Room and pillar.	Fan	Steam....	Shipping.
.....	" "	Des Moines.	Shaft.	Room and pillar.	Fan	Steam....	Shipping.
O. S.	" "	Des Moines.	Shaft.	Room and pillar.	Fan	Steam....	Shipping.
O. 4	" "	Des Moines.	Shaft.	Room and pillar.	Fan	Steam....	Shipping.
.....	" "	Des Moines.	Shaft.	Room and pillar.	Fan	Steam....	Shipping.
.....	" "	Des Moines.	Shaft.	Room and pillar.	Fan	Steam....	Shipping.
.....	" "	Des Moines.	Shaft.	Room and pillar.	Fan	Steam....	Shipping.
.....	" "	Des Moines.	Shaft.	Room and pillar.	Fan	Steam....	Shipping.
.....	" "	Des Moines.	Shaft.	Room and pillar.	Fan	Steam....	Shipping.
.....	" "	Des Moines.	Shaft.	Room and pillar.	Fan	Steam....	Local.
.....	" "	Des Moines.	Shaft.	Room and pillar.	Fan	Steam....	Shipping.
.....	" "	Des Moines.	Shaft.	Room and pillar.	Fan	Steam....	Shipping.
.....	" "	Des Moines.	Shaft.	Room and pillar.	Fan	Steam....	Shipping.
.....	" "	Des Moines.	Shaft.	Room and pillar.	Fan	Steam....	Local.
.....	" "	Des Moines.	Shaft.	Room and pillar.	Fan	Steam....	Shipping.
.....	" "	Des Moines.	Shaft.	Room and pillar.	Fan	Steam....	Shipping.
.....	" "	Des Moines.	Shaft.	Room and pillar.	Fan	Steam....	Local.
.....	" "	Des Moines.	Shaft.	Room and pillar.	Fan	Steam....	Shipping.
.....	" "	Des Moines.	Shaft.	Room and pillar.	Fan	Steam....	Shipping.
.....	" "	Des Moines.	Shaft.	Room and pillar.	Fan	Steam....	Shipping.
.....	" "	Des Moines.	Shaft.	Room and pillar.	Fan	Steam....	Shipping.
.....	" "	Des Moines.	Shaft.	Room and pillar.	Fan	Steam....	Shipping.
.....	" "	Des Moines.	Shaft.	Room and pillar.	Fan	Steam....	Shipping.
.....	G. E. Walters	Runnells	Shaft.	Room and pillar.	Fan	Steam....	Shipping.
.....	Enterprise.	Enterprise.	Shaft.	Room and pillar.	Fan	Steam....	Shipping.
.....	H. Bosley	Commerce.	Shaft.	Longwall ...	Fan	Steam....	Shipping.

WEBSTER COUNTY.

Name of Company.	Superintendent.	Postoffice Address.	Shaft or Slope.	Plan of Working.	How Ventilated.	Power Used.	Shipping or Local.
Crooked Creek Coal and Railroad company	F. E. Wilson ..	Webster City ..	Shaft.	Long wall.	Fan	Steam	Shipping.
Pleasant Valley Coal company.	Jerry Dawson.	Fort Dodge ..	Shaft.	Room and pillar.	Fan	Steam	Shipping.
Y	John Gleason.	Fort Dodge ..	Shaft.	Room and pillar.	Fan	Steam	Shipping.
Y	Wm. McEwan.	Coalville ..	Shaft.	Room and pillar.	Furnace ..	Steam	Local.
company.	Wm. Dawson.	Kalo	Shaft.	Long wall.	Fan	Steam	Shipping.
.....	Thos. Adameon.	Lehigh	Shaft.	Long wall.	Fan	Steam	Shipping.
.....	E. W. Collins.	Fort Dodge ..	Shaft.	Room and pillar.	Fan	Steam	Shipping.
Johnson Coal company.	A. P. Campbell	Kalo	Shaft.	Long wall.	Furnace ..	Horse	Shipping.
Bennett Coal company	S. Bennett	Kalo	Slope.	Long wall.	Furnace ..	Horse	Shipping.
Sam McClure Coal company.	Sam McClure ..	Lehigh ..	Shaft.	Long wall.	Fan	Steam	Local.
Butler & Rhodes Coal company	D. Rhodes.	Coalville ..	Shaft.	Long wall.	Fan	Steam	Shipping.

BOONE COUNTY.

Boone Coal and Mining	Robt. Kennedy.	Fraser	Shaft.	Long wall.	Fan	Steam	Shipping.
Boone Coal and Mining	Robt. Kennedy	Fraser	Shaft.	Long wall.	Fan	Steam	Shipping.
Boone Coal and Mining	Robt. Kennedy	Fraser	Shaft.	Long wall.	Fan	Steam	Shipping.
Boone Coal and Mining—No. 6.	Robt. Kennedy	Fraser	Shaft.	Long wall.	Fan	Steam	Shipping.
Eagle Coal company.	W. J. Conway.	Boonesboro ..	Shaft.	Long wall.	Fan	Steam	Shipping.
Crowe Coal company.	Wm. Crowe.	Boonesboro ..	Shaft.	Long wall.	Fan	Steam	Shipping.
The Heaps Coal company.	A. Heaps	Boonesboro ..	Shaft.	Long wall.	Fan	Steam	Shipping.
Risher Coal company.	Thos. W. Hughes.	Boonesboro ..	Shaft.	Long wall.	Fan	Steam	Shipping.
Rogers Coal company.	Geo. W. Rogers.	Boonesboro ..	Shaft.	Long wall.	Fan	Steam	Shipping.
Albert Davis Coal company.	Albert Davis	Incline	Shaft.	Long wall.	Fan	Steam	Shipping.
Big Five Coal company	W. D. Johnson	Pilot Mount.	Shaft.	Room and pillar.	Furnace ..	Horse	Local.
W. D. Johnson Coal company.	A. L. Carpenter.	Molingona ..	Shaft.	Long wall.	Steam jet ..	Horse	Shipping.
W. H. Bernard Coal company.	H. H. Canfield	Boonesboro ..	Shaft.	Long wall.	Fan	Steam	Shipping.
Heaps & Crowe Coal company.	W. H. Bernard	Madrid	Shaft.	Long wall.	Furnace ..	Horse	Local.
	George Heaps	Boonesboro ..	Shaft.	Long wall.	Fan	Steam	Shipping.

JASPER COUNTY.

Coal Company No. 6.	W. C. Sheppard, Jr.	Colfax	Shaft	Room and pillar.	Fan	Steam	Shipping.
Coal Company No. 7.	Jr.	Colfax	Shaft.	Room and pillar.	Fan	Steam	Shipping.
Coal Company No. 8.	Jr.	Colfax	Shaft.	Room and pillar.	Fan	Steam	Shipping.
ny.		Colfax	Shaft.	Room and pillar.	Furnace	Horse	Local.
ny		Newton	Shaft.	Room and pillar.	Natural.	Steam	Local.
company		Newton	Shaft.	Room and pillar.	Natural.	Horse	Local.
y		Newton	Shaft.	Room and pillar.	Furnace	Steam	Local.
company.	Jas. Worrick	Colfax	Shaft.	Room and pillar.	Fan	Horse	Shipping.
company	O. M. Norris	Prairie City	Drift.	Room and pillar.	Furnace	Horse	Local.
company	Thos. Brooks	Newton	Shaft.	Room and pillar.	Natural	Horse	Local.

GUTHRIE COUNTY.

DALLAS COUNTY.

SCOTT COUNTY.

GREENE COUNTY.

Name of Company.	Superintendent.
.....	Robert Ditchburn.....
Willow Grove Coal company.....	.....
Keystone Coal company.....	.....
Snake Creek Coal company.....	Geo. Richards.....

TABLE No. 1.

Showing number of mines, output of coal, number of miners and other employees in District No. 3, for year ending June 30, 1904.

Name of County.	Number of mines.	Amount of coal of all kinds produced.	Number of miners employed.	Number of other inside employees.	Number of outside employees.	Total number of employees
Polk	27	966,172	1,547	500	280	2,327
Webster	15	155,823	313	121	47	481
Boone	16	845,472	789	169	112	1,070
Jasper	11	802,599	477	170	62	709
Guthrie	12	29,353	137	11	16	164
Dallas	5	16,586	49	19	8	76
Scott	6	14,983	54	23	5	82
Greene	5	15,898	62	11	7	80
Total	97	1,846,886	3,423	1,024	587	4,989

TABLE No. 2.

Showing number of mines, output of coal, number of miners, and other employees in District No. 3, for year ending June 30, 1905.

Name of County.	Number of mines.	Amount of coal of all kinds produced.	Number of miners employed.	Number of other inside employees.	Number of outside employees.	Total number of employees.
Polk	30	1,094,521	1,905	566	334	2,805
Webster	11	123,056	233	95	39	367
Boone	15	422,802	766	272	113	1,151
Jasper	12	805,027	454	143	74	671
Guthrie	15	29,416	102	31	17	150
Dallas	5	13,599	43	17	10	70
Scott	4	5,210	38	14	6	58
Greene	6	17,470	74	23	11	108
Total	98	2,010,101	3,615	1,161	604	5,380

TABLE No. 3.

Showing the output of coal of the counties comprising District No. 3 for the past five years .

Counties.	1901	1902	1903	1904	1905
Polk	938, 600	981, 610	996, 573	966, 173	1, 094, 521
Boone	802, 800	286, 800	288, 055	845, 472	422, 802
Jasper	184, 500	153, 400	323, 812	302, 599	805, 027
Webster	167, 800	132, 477	159, 990	155, 323	122, 036
Greene	12, 400	16, 192	12, 711	15 898	17, 470
Guthrie	16, 750	17, 250	16, 545	29, 355	29, 416
Dallas	29, 400	84, 750	19, 990	16, 586	13, 599
Scott	22, 469	23, 973	18, 280	14, 983	5, 210

TABLE No. 4.

Showing tonnage in District 3, for past ten years, with number of fatal accidents and number of employes with tonnage per accident, etc.

Year.	Number of fatal accidents.	Tons of coal mined during each year.	Number of em- ployes.	Tons of coal mined per accident.	Number of em- ployes for each accident.
1896	9	1, 059, 022	3, 876	117, 699	376
1897	8	1, 201, 788	3, 649	150, 223	456
1898	10	1, 370, 459	3, 333	137, 045	333
1899	11	1, 555, 050	3, 437	141, 368	312
1900	12	1, 508, 020	3, 819	125, 502	477
1901	7	1, 607, 690	3, 904	229, 670	558
1902	13	1, 658, 152	3, 878	127, 163	298
1903	5	1, 835, 456	3, 691	367, 091	733
1904	10	1, 846, 336	4, 939	184, 633	493
1905	11	2, 010, 101	5, 330	182, 736	480

ACCIDENTS.

There were twenty-one fatal and sixty non-fatal accidents during the biennial period, the particulars of which will be found in the details by counties. In canvassing the causes of mine accidents it will be found that the usual story is told; falling slate, premature blast, caught by cage, drivers caught under car, and shotfirers are listed among the killed. Like in all the affairs of life, where any dangerous condition is found, accidents will occur. Men at times expose themselves needlessly to danger, and in very many cases we can see where a "stitch in time saves nine", and with just a little care a death or an injury could have been averted.

Mining rules or mining laws can not prevent such accidents; they are peculiarly a part of man and a feature of the employment. Some men will neglect to put up needed timbers or props, some will use reckless methods in handling powder, and drivers become heedless to all danger and take needless risk. Only a strong guardian could save some men from accidents occurring in our mines.

The mining laws of the State are observed in a satisfactory manner; some of our mine owners are continually instituting plans and ways to make their mines safe and no expense is spared to protect life and provide good ventilation and sanitary conditions.

Fatal accidents in District No. 3, for two years ending June 30, 1905.

Non-fatal accidents in District No. 8, for two years ending June 30, 1905.

Date.	Name.	Occupation.	Character of Injury.	Cause of Accident.	Mine Where Accident Occurred.	County.
July 9, 1903	John Wilding.....	Miner.....	Arm broken.....	Caught in cars.....	Colfax Consolidated Coal Co.....	Jasper.
July 22, 1903	J. T. Jones.....	Timberman.....	Finger cut off.....	Ax fell on hand.....	Colfax Consolidated Coal Co.....	Jasper.
July 28, 1903	Geo. Ewing.....	Driver.....	Internally injured.....	Fall of slate.....	Crook Creek No. 4.....	Webster.
September 28, 1903	Jos. Birmingham.....	Laborer.....	Skull broken.....	Fall of slate.....	Saylor Coal Co.....	Polk.
September 29, 1903	Thos. Colzon.....	Miner.....	Hip bruised.....	Fall of slate.....	Hanlon Mine.....	Scott.
October, 1903	J. R. Anderson.....	Miner.....	Ankle broken.....	Fall of slate.....	Enterprise Coal Co.....	Polk.
November 11, 1903	Wm. Underwood.....	Miner.....	Collar bone broken.....	Fall of slate.....	Enterprise Coal Co.....	Greene.
November 17, 1903	H. F. Scott.....	Miner.....	Back hurt.....	Fall of slate.....	Enterprise Coal Co.....	Jasper.
November 21, 1903	Jno. Killon.....	Timberman.....	Foot mashed.....	Fall of slate.....	Enterprise Coal Co.....	Jasper.
November 21, 1903	Andrew Johnson.....	Miner.....	Leg broken.....	Fall of slate.....	Boone County Coal company.....	Boone.
December 8, 1903	Geo. Newcomb.....	Miner.....	Finger pinched off.....	Riding extra.....	Colfax Consolidated Coal Co.....	Boone.
January 14, 1904	Mark Jones.....	Miner.....	Broken leg.....	Fall of slate.....	Des Moines Coal Co.....	Jasper.
January 18, 1904	B. H. McCarty.....	Timberman.....	Hip broken.....	Fall of timber.....	Des Moines Coal Co.....	Polk.
January 20, 1904	John Blumingham.....	Miner.....	Leg broken.....	Fall of slate.....	W. D. Johnson Mine.....	Boone.
January 21, 1904	Fred Norwood.....	Pr foreman.....	Mashed hips.....	Fall of slate.....	Norwood Coal Co.....	Polk.
February 4, 1904	W. J. Jackson.....	Driver.....	Fingers mashed.....	Caught in car.....	West Riverside Coal company.....	Polk.
February 13, 1904	Geo. Cook.....	Miner.....	Rib broken.....	Fall of slate.....	Smith Lowe Coal company.....	Polk.
February 25, 1904	David Scott.....	Miner.....	Leg broken.....	Fall of slate.....	Smith Lowe Coal company.....	Polk.
Winter, 1903-1904	T. B. Smith.....	Miner.....	Leg broken.....	Fall of slate.....	Enterprise Coal Co.....	Polk.
March 19, 1904	Malone.....	Miner.....	Ribs fractured.....	Fall of coal.....	Des Moines Coal Co.....	Polk.
April 27, 1904	Roy Mercer.....	Miner.....	Crushed hips.....	Caught by cars.....	Des Moines Coal Co.....	Polk.
May 10, 1904	Chas. Lundeen.....	Roadman.....	Leg broken.....	Fall of Rock.....	Rogers Coal Co.....	Boone.

NON-FATAL ACCIDENTS--CONTINUED.

Date.	Name.	Occupation.	Character of Injury.	Cause of Accident.	Mine Where Accident Occurred.	County.
June 28, 1904	Gay Stover ..	Miner	Bones in foot broken	Fall of slate	Colfax Consolidated Coal Co	Jasper.
July 8, 1904	Dave Badie	Cager	Arm broken	Caught by cage		Jasper.
July 28, 1904	E. H. Ballard	Miner	Arm broken	Fall of slate		Guthrie.
July 28, 1904	John Sullivan	Driver	Tuighs bruised	Falling timbers		Polk.
September 8, 1904	Geo. Wigham	Driver	Leg broken	Fall of slate	Smith-Lowe Coal company	Polk.
September 8, 1904	Geo. Ripe	Miner	Bruised back	Fall of slate	Coaldale Fuel Co.	Polk.
September 19, 1904	H. DeVan	Driver	Arm broken	Car ran off track	Smith-Lowe Coal company	Polk.
September 21, 1904	John Cotton	Miner	Leg broken	Fall of slate	Center Coal Co.	Polk.
September 23, 1904	John Hedron	Miner	Ribs broken	Caught between car and lar overhead	Coaldale Fuel Co	Polk.
October 31, 1904	Ed. Ocoanant	Shotfirer	Leg broken	Flying coal		Polk.
December 1, 1904	Albert Davis	Miner	Leg broken	Fall of slate		Boone.
December 3, 1904	Joe Bostolletti	Miner	Foot broken	Fall of slate		Jasper.
December 5, 1904	Albert Grandquist	Driver	Ribs broken	Caught between car and timbers		Jasper.
December 6, 1904	Joe Lilly	Miner	Badly burned	Powder explosion	Maple Block Coal company	Jasper.
January 21, 1905	Peter Frisk	Miner	Leg broken	Fall of slate	Glenwood Coal Co.	Polk.
January 23, 1905	Chas. Evans	Shotfirer	Out about head	Flying coal	Enterprise Coal Co	Polk.
January 24, 1905	M. V. Carpenter	Miner	Back hurt	Fall of slate	Smith-Lowe Coal company	Polk.
February 15, 1905	W. Robinson	Driver	Ear cut.	Kicked by mule	Co.	Polk.
February 17, 1905	Jasper Kinney	Miner	Both legs and 8 ribs broken	Flying coal	Co.	Polk.
February 23, 1905	John Peterson	Miner	Two ribs broken	Fall of slate	Co.	Polk.
February 25, 1905	A. Trevethon	Miner	Four ribs broken	Fall of slate	Co.	Polk.
March 2, 1905	N. E. Setts	Miner	Thumb taken off	Fall of slate	Co.	Polk.

March	4, 1905	Aug. Storchewich..	Miner	Two fingers taken off	Caught in sheave wheel	Colfax Consoli- dated Coal Co	Jasper.
March	8, 1905	Chas. Krohn.	Timberman	Back dislocated... .. .	Fall of slate	Colfax Consoli- dated Coal Co	Jasper.
March	10, 1905	Jno. R. Owens.....	Timberman	Bruised hips	Fall of slate	Co.	Polk.
April	12, 1905	Jim Watkins.....	Miner	Hip dislocated.	Fall of slate	Co.	Polk.
April	27, 1905	J. B. Bird	Miner	Two ribs broken.	Fall of slate	Co.	Polk.
May	2, 1905	Peter Azner	Timberman	Back dislocated	Fall of slate	Co.	Polk.
May	2, 1905	Dominas Bimbi ..	Miner	Wrist broken	Runaway car	Co.	Polk.
May	21, 1905	Emmet Ward	Miner	Leg broken	Fall of slate	Norwood Coal Co	Polk.
May	22, 1905	Wm. Murray	Miner	Strained back	Caught between mule and car	Des Moines Coal Co.	Polk.
May	25, 1905	John Ford	Miner	Back injured.	Fall of slate	Polk.	Polk.
May	27, 1905	"	Shotfirer	Arm broken	Flying coal	Polk.	Polk.
May	29, 1905	"	Miner	Both legs and one rib broken	Fall of coal	Polk.	Polk.
June	3, 1905	"	Miner	Arm broken	Fall of slate	Polk.	Polk.
June	28, 1905	"	Miner	Four ribs broken.	Fall of slate	Polk.	Polk.
June	29, 1905	Robert Holmes ..	Miner	Hips bruised.	Fall of slate	Polk.	Jasper.
June	1905	Jacob Watter	Miner	Leg and ribs broken.	Fall of coal.	Polk.	Polk.

**FATAL ACCIDENTS IN THE THIRD DISTRICT FOR THE YEAR
ENDING JUNE 30, 1904.**

GUY WESTON PARKER.

Guy Weston Parker, a miner, in the employ of the Keystone Coal Company of Des Moines, was killed by a fall of slate on the morning of July 6, 1903. Mr. Parker was in his room at the juncture of the fifth south and main entries. When slate fell on him he was standing on the front of the car. The roof had been examined that morning and was considered safe. Charles Moore, pit boss, was near him at the time when he was caught by the falling slate and helped carry him out. A doctor was called and an ambulance secured, and he was taken to his home at 1925 North Washington street. The piece of slate which fell on him was about seven feet long, three feet wide, and would average about nine inches in thickness.

GUS CARLSON.

Gus Carlson, a miner, in the employ of the Saylor Coal Company, was instantly killed in room 10 on the eighth east, on the north side of the Saylor Coal Company's mine, at about 4:30 p. m., July 23, 1903. He was found dead about eighteen feet from the face of his room and directly across his roadway. His limbs were broken and badly crushed by flying coal caused from a shot, evidently fired by himself. There was no fall of slate or any other material about him. He, in company with C. C. Rice and William Wiley, had been firing shots. Each had fired one shot, and Wiley and Rice, not knowing that Carlson intended firing another, had walked out of the entry. At about 6:30 p. m. it was learned that he had been killed, evidently by a second shot fired after Rice and Wiley had gone out.

WILLIAM THOMAS.

William Thomas, a miner, in the employ of the Colfax Consolidated Coal Company, of Colfax, Jasper county, was killed by a fall of slate in mine No. 6, on the 27th day of August, 1903. His left leg was broken above the ankle and the right leg between the knee and ankle, while on his left side three ribs were broken loose from the breast bone and crushed in. He was about seventy years of age. A shot had been put in the entry; the entry was low and he had been warned by R. M. Jones that it was in a dangerous condition. He (Thomas) sounded it and said it was all right, and just then it fell and caught him. The piece that struck him was a feather edge and was not large; would weigh perhaps, two hundred pounds. The accident happened about 10:30 a. m., August 27, 1903, and he died two hours later.

CHARLES HOLMES.

Charles Holmes, a miner, in the employ of the Maple Grove Coal Company, was Killed in mine No. 2 of the above company on November 7, 1903. He was at work in his room at the time and was struck by a fall of coal, which dislocated one hip and injured him internally, from which injuries he died at 7:15 of the same day. He was a practical miner, and had been in the employ of the Maple Grove Coal Company for four years.

ANDREW ANDERSON.

Andrew Anderson, a miner employed by the W. D. Johnson Coal company of Boone county, Iowa, was instantly killed by a section of roof falling on him while he was engaged at work in his room in the above mine. The accident resulting in his death occurred at 10 o'clock on the morning of November 17, 1903. He was sixty years of age, a practical miner and had been in the employ of the above company for eighteen years.

GEORGE SMITH.

On December 11, 1903, at 10 A. M., George Smith, superintendent of the Pleasant Valley Coal company, mine No. 3, at Coalville, Webster county, Iowa, was instantly killed by falling into the sump at the bottom of the shaft, which was full of hot water at the time. He was burned from the waist down. The accident was due entirely to his own work. He had caused the exhaust pipe from the steam pump to be turned into the sump, which heated the water to a boiling heat. This also caused steam on the entry and rendered it impossible to see the sump. In that condition he did not know he was so close to the shaft and accidentally walked into the sump.

ERNEST FOREMAN.

On October 20, 1903, Earnest Foreman, a mule driver, in the employ of the Gibson Coal and Mining Company, No. 4 mine, was fatally injured on the main entry, about 1,500 feet from the main shaft. The accident happened about 9 A. M., and injury consisted in the outer part of the backbone being crushed about one inch in width. This accident was caused by falling slate, and at the time was not thought to be fatal and was so reported to this office; but later Mr. Foreman succumbed to his injuries, dying on November 19, 1903.

JOSEPH SMITH.

Joseph Smith was fatally injured at the Norwood Coal Mine on April 27, 1904, at about 10:45 A. M., by a fall of slate. The accident happened twenty feet inside of the last break through on the third west entry, south side. His back was broken, and he also received other internal injuries. He was immediately removed to the hospital, but succumbed to his injuries a few days later. It is presumed the injured person went to look for work and went below without the knowledge of any one in charge. The company shot examiners go to work about 10:30 A. M., and had called for a cage and injured person got on with them, and started around the mine in search of mine foreman. The injured man was not in the employ of the company.

HOYT DUNSKIN.

Hoyt Dunskin, a driver, employed by the Saylor Coal Company, was fatally injured at 11:20 A. M., on the morning of December 29, 1903. Mr. Dunskin was coming out of the first east entry on the south side with a loaded trip of cars, and in some unknown way he fell under the trip and was instantly killed. This happened opposite room twelve. There was no one present at the time of his death. He was killed on a grade, and the supposition is, that tail chain came unhooked and that he attempted to recouple while cars were in motion. He was found under his trip by dayman. His back was broken and he was internally injured.

HARRY GIBSON.

Harry Gibson, a shotfirer, in the employ of the Colfax Consolidated Coal Company, mine No. 6, Colfax, Iowa, was instantly killed while performing his duties as shotfirer in mine No. 6, between the hours 4 and 6 P. M., June 28, 1904. When accident occurred he was in the first plug entry from the fifth west, about twenty or twenty-five feet from the first plug entry. His death was caused by flying coal from a shot in a break-through near the face of plug entry off fifth west. He had evidently lighted a few shots on the inside entry, and expected to have time to go from there to the outside plug entry and light that shot and get out before the break-through shot would go off, but it seems there was not time enough for him to make the run back and the shot must have caught him while in there. The left side of his head was crushed, arms broken and many bruises and cuts covering the body, so that death must have resulted instantly.

JAMES CROWE.

On July 22, 1904, James Crowe, vice-president and superintendent of the Heaps & Crowe Coal company of Boone, Iowa, was found dead in the sump of the main shaft. He had evidently been caught in some unknown manner between the cage and the side of the shaft and dragged from the bottom to the ground landing; from there his body dropped back into the sump, a distance of 225 feet, where it was found two or three hours later. Coroner J. C. Walker was summoned and decided that an inquest before a jury was unnecessary, as death was caused in a purely accidental manner, and that no blame attached to anyone connected with the mine. Mr. Crowe was one of the well known coal operators of Boone county.

ED STUART.

Ed Stuart, a driver in the employ of the Saylor Coal company, was instantly killed in the mine of the above company on September 7, 1904, by a loaded car passing over him. Mr. Stuart was employed at the mine as a regular mule driver and was coming out of the first east entry on the south side of the mine with a trip of cars at about 3 o'clock on above date when the accident occurred. It can not be determined by what means Mr. Stuart came to be under the cars, as no one witnessed the accident, but it is evident he was killed instantly, as the first car passed over his body, breaking his back and crushing him internally. He was found under the front of the second car a few minutes after the accident occurred by D. W. Roberts, who was coming out of the entry.

ADAM WAITKUM.

Adam Waitkum, a miner in the employ of the Smith-Low Coal Company of Carbondale, Iowa, was fatally injured by a fall of slate which occurred on the afternoon of February 6, 1905. He was in room 2, third north entry, when fall of slate occurred, crushing him internally. The accident occurred in mine No. 4. Mr. Waitkum had been in the employ of the company about four months.

THOMAS HAMMOND.

On February 2, 1905, a fatal accident occurred to Thos. Hammond, a mule driver in the employ of the Elko Coal and Mining Company of Des Moines, Iowa. Mr. Hammond was on the top of a hill coming out to the shaft bottom with a loaded trip of cars, when he was evidently kicked by the mule under the loaded cars. His leg was broken and he was hurt internally. The cause of the accident is only known by his own statement, which was that the mule kicked him. Accident happened February 2, 1905, at 3:30 P. M., and he died two days later. He was twenty-seven years old, and had been in the employ of the company for eight weeks.

JOHN BACON.

John Bacon was fatally injured in the mine of the Oak Park Fuel Company of Des Moines, Iowa, on January 18, 1905. Mr. Bacon was working with his father in the first east entry on the above date, and while in the act of pouring powder from a keg into a coffee pot that was being utilized for a powder can, it is supposed that a spark fell from his lamp, which ignited a full keg of powder, burning him severely, both externally and internally. He was at once removed to the hospital where he died twenty-four hours later.

HENRY CONNACK.

Henry Connack, a miner in the employ of the Bennett Bros. Coal company of Des Moines, Iowa, was fatally injured at 9:30 A. M. on January 18, 1905, by a fall of slate in above mine. He was in the first south entry, forty-five or fifty feet from the face, when a fall of slate occurred, crushing him internally, from which injuries he died two days later. Timbermen were at work timbering up place six or eight feet from where slate fell when the accident occurred. He was twenty-six years old and had been in the employ of the company about three months.

SAMUEL TAYLOR.

Samuel Taylor, a miner, in the employ of the West Riverside Coal Company, was killed in this mine on the 17th of January, 1905. While in the act of mining off a shot in the face of his room, a piece of draw slate, weighing about one ton, fell on him, crushing him to the floor and injuring him internally, from which injuries he died the following day. Mr. Taylor was warned to stay from under the slate, but it seems he was indifferent to the danger, receiving injuries as above stated.

L. A. BROWN.

L. A. Brown, a miner in the employ of the Diamond Joe Coal Company of Runnells, Iowa, was instantly killed at 11 A. M. November 17, 1904. He was in room 7, inside of fourth east entry on main north when fall of slate occurred. The fall of slate was caused by two unknown slips in the roof coming together in a V shape. He was taken from under the slate by H. H. Innis, J. B. Williams and H. H. Davis, fellow miners. It took them fifteen or twenty minutes to remove slate from off of body as the slate would weigh between two and three tons. Mr. Brown was but seventeen years old. He had been in the employ of the company for three years.

PETER JOHNSON.

Peter Johnson, a miner in the employ of the Smith-Lowe Coal company of Carbondale, Iowa, was fatally injured in mine No. 3 of said company on the morning of November 30, 1904. He was at work in room 2, off of room 19, sixth east entry, when fall of slate occurred, crushing him around chest and shoulders. After he was taken from under the slate he was able to walk to the street car and return to his home, but died from his injuries two days later. He was an old experienced miner and had been in the employ of the company for three and one-half years.

WILLIAM LAIDLER.

William Laidler, a miner, in the employ of the Ditchburn Coal Company of Angus, Iowa, was fatally injured in the mine of the above company about 3:30 P. M. October 6, 1904, from which injuries he died two days later. He was drawing a pillar. The roof had made one fall and had broken off. He holed through the pillar and left a stump. As cars were plentiful that afternoon he thought he could get a car or two off the stump, and in so doing a chunk of draw slate fell on him, breaking his back and injuring him about the head and face. He was an old time experienced mine.

JOHN W. LOGAN.

John W. Logan, a miner in the employ of the Saylor Coal Company was fatally injured at said mine on the afternoon of October 12, 1904. Accident occurred in room 3, ninth east north entry. He was undermining his shot when coal fell on him crushing his skull. He was found a few minutes later by Robert Heathcote, Luke Wilfan and Frank Wilfan. He was not dead when taken from under the coal, but died in about three minutes after being removed.

**FOLLOWING IS THE LIST OF NON-FATAL ACCIDENTS WHICH
OCCURRED IN THE THIRD DISTRICT OF IOWA FOR THE
TWO YEARS ENDING JUNE 30, 1905.**

July 9, 1903, John Wilding, arm broken coupling cars at Colfax, Consolidated Coal Company, Colfax, Jasper county.

July 22, 1903, J. T. Jones, timberman, finger cut off by ax while timbering at Colfax, Consolidated Coal Company, Jasper county.

July 28, 1903, George Ewing, driver, internally injured by fall of slate at Crooked Creek Mine No. 4, Webster county.

September 28, 1903, Joseph Birmingham, laborer, skull broken by fall of slate at Saylor coal mine, Polk county.

September 29, 1903, Thomas Colgon, miner, hip bruised and ribs broken by fall of slate at Hanlon coal mine, Scott county.

October, 1903, J. R. Anderson, miner, ankle broken by fall of slate at Enterprise mine, Polk county.

November 11, 1903, William Underwood, miner, collar bone broken and ankle dislocated by fall of slate in mine of the Goodwin Coal Company, Grand Junction, Greene county.

November 17, 1903, H. F. Scott, miner, back hurt by fall of slate at Colfax, Consolidated Coal Company's mine, Jasper county.

November 21, 1903, John Killion, timberman, foot fractured by fall of slate in mine of Boone County Coal Company.

November 21, 1903, Andrew Johnson, miner, leg broken by fall of slate at Boone County Coal Company, Boone County.

December 8, 1903, George Newcomb, miner, finger pinched off riding extras at mine of Colfax Consolidated Coal Company.

January 14, 1904, Mark Jones, miner, bone of leg fractured by fall of slate at mine of Des Moines Coal Company, Polk county.

January 18, 1904, B. H. McCarty, timberman, hip broken by fall of timber at mine of Des Moines Coal Company, Polk county.

January 20, 1904, John Birmingham, miner, leg broken by fall of slate in the W. D. Johnson mine, Boone county.

January 21, 1904, Fred Norwood, pit foreman, back dislocated and mashed through hips by fall of slate at Norwood mine, Polk county.

February 4, 1904, W. J. Jackson, driver, two fingers mashed off by car in West Riverside mine, Polk county.

February 13, 1904, George Cook, miner, rib broken by fall of slate in Smith-Lowe mine, Carbondale, Polk county.

February 25, 1904, David Scott, miner, leg broken by fall of slate in Smith-Lowe mine, Carbondale, Polk county.

Winter 1903-4, T. B. Smith, miner, leg broken by fall of slate in mine of Enterprise Coal Company, Polk county.

March 19, 1904, Malone, miner, shoulder and ribs fractured by fall of coal at mine of Des Moines Coal Company, Polk county.

April 27, 1904, Roy Mercer, miner, crushed about hips by cars at mine of Des Moines Coal Company, Polk county.

May 10, 1904, Charles Lundeen, roadman, leg broken by fall of rock at mine of Rogers Coal Company, Boone county.

June 28, 1904, Guy Stover, miner, one bone broken in left foot at mine of Colfax Consolidated Coal Company, Colfax, Jasper county.

July 8, 1904, Dave Budie, cager, arm broken by cage at mine of Colfax Consolidated Coal Company, Colfax, Jasper county.

July 23, 1904, E. H. Ballard, miner, arm broken by fall of slate in mine of Greenbrier Coal Company, Jamaica, Guthrie county.

July 25, 1904, John Sullivan, driver, thighs bruised by falling timbers in mine of Saylor Coal Company, Polk county.

September 3, 1904, George Wisham, driver, leg broken by fall of slate in mine of Smith-Lowe Coal Company, Polk county.

September 8, 1904, George Rupe, miner, badly bruised back and legs by fall of slate in mine of Coaldale Fuel Company, Polk county.

September 19, 1904, H. DeVan, driver, arm broken by car running off track at mine of Smith-Lowe Coal Company, Polk county.

September 21, 1904, John Cotton, miner, leg broken by fall of slate in mine of Center Coal Company, Polk county.

September 23, 1904, John Heffron, miner, two ribs broken by being caught between top of car and collar overhead in mine of Coaldale Fuel Company, Polk county.

October 31, 1904, Ed Cocoanut, miner and shotfirer, leg broken by flying coal, mine of Enterprise Coal Company, Polk county.

December 1, 1904, Albert Davis, miner, leg broken by fall of slate in mine of Albert Davis, Pilot Mound, Boone county.

December 3, 1904, Joe Bostoletti, miner, bone of foot broken by fall of slate, Colfax Consolidated Coal Company, Jasper county.

December 5, 1904, Albert Grandquist, driver, back dislocated and four ribs broken, caught between cars and timber, Colfax Consolidated Coal Company, Colfax, Jasper county.

December 6, 1904, Joe Lilly, miner, badly burned about face and back by powder explosion in mine of the Maple Block Coal Company, Polk county.

January 21, 1905, Peter Frisk, miner, leg broken by fall of slate in mine of the Glenwood Coal Company, Polk county.

January 23, 1905, Charles Evans, shotfirer, cut about head, got lost in room after lighting shot. Enterprise Coal Company.

January 24, 1905, M. V. Carpenter, miner, back slightly hurt by fall of slate in mine of Smith-Lowe Coal Company, Polk county.

February 15, 1905, W. Robinson, driver, ear partly kicked off by mule in mine of Norwood Coal Company, Polk county.

February 17, 1905, Jasper Kinney, miner, both legs and three ribs broken by flying coal from explosion in mine of the Keystone Coal Company, Polk county.

February 23, 1905, John Peterson, miner, two ribs and one ankle broken by fall of slate in mine of Madison Coal Company, Polk county.

February 25, 1905, A. Trevethon, miner, four ribs broken by fall of slate in Colfax Consolidated Coal Company's mine, Colfax.

March 2, 1905, N. E. Setz, miner, thumb taken off at first joint by fall of slate, Colfax Consolidated Coal Company, Jasper county.

March 4, 1905, Aug. Storchevich, miner, two fingers taken off in sheave wheel, Colfax Consolidated Coal Company, Jasper county.

March 8, 1905, Charles Krohn, driver and timberman, back dislocated and hurt about lungs and kidneys, fall of slate, Colfax Consolidated Coal Company, Colfax, Jasper county.

March 10, 1905, John R. Owens, timberman, squeezed through hips and back by fall of slate, Des Moines Coal Company, Polk county.

April 12, 1905, Jim Watkins, miner, hip dislocated by fall of slate in mine of Enterprise Coal Company, Polk county.

April 27, 1905, J. B. Bird, miner, two ribs broken by fall of slate at mine of Des Moines Coal Company.

May 2, 1905, Peter Axuer, timberman, back dislocated by fall of slate in mine of Enterprise Coal Company, Polk county.

May 2, 1905, Dominac Bimbi, miner, wrist broken by car breaking loose in mine of Saylor Coal Company.

May 21, 1905, Emmet Ward, miner, leg broken by fall of slate in mine of Norwood Coal Company, Polk county.

May 22, 1905, William Murray, driver, strained back and hips, was caught between mule and car in mine of Des Moines Coal Company.

May 25, 1905, John Ford, miner, back injured by fall of slate in mine of Coaldale Fuel Company, Polk county.

May 27, 1905, Wm. Turner, shotfirer and shot examiner, arm broken by flying coal while firing shots at mine of Saylor Coal Company, Polk county.

May 29, 1905, Jacob Walters, miner, both legs and one rib broken by falling coal at mine of Center Coal Mining Company, Polk county.

June 3, 1905, H. E. Hathaway, miner, arm broken by fall of slate in mine of Oak Park Fuel Company, Polk county.

June 28, 1905, Angelo Biondi, miner, four ribs broken by fall of slate at mine of Saylor Coal Company, Polk county.

June 29, 1905, Robert Holmes, miner, Bruised through hips and shoulders by fall of slate at mine of Colfax Consolidated Coal Company, Colfax, Jasper county.

June, 1905, Jacob Watter, miner, leg and ribs broken by falling coal at mine of Center Coal Mining Company, Polk county.

Thirteenth Biennial Report

OF THE

Commissioners of Pharmacy

FOR THE

STATE OF IOWA.

1905.

PRINTED BY ORDER OF THE GENERAL ASSEMBLY.

DES MOINES.
B. MURPHY, STATE PRINTER.
1905.

Letter of Transmittal.

DES MOINES, IOWA, Sept. 1, 1905.

To His Excellency, Albert B. Cummins, Governor:

SIR—We herewith submit to you the Thirteenth Biennial Report of the Commissioners of Pharmacy for the State of Iowa for the official biennial period ending July 1, 1905.

FRED RUSSELL,
BERT F. KELTZ,
J. S. GOSS,
Commissioners.

CHARLES W. PHILLIPS,
Secretary.

TREASURER'S REPORT.

From April 23, 1903, to April 23, 1904, of the Commissioners of Pharmacy
for the State of Iowa, Charles W. Phillips, treasurer.

RECEIPTS.

Cash on hand April 24, 1903.....	\$ 8,000.00
479 Changes of location at 50 cents	239.50
172 Delinquent renewals at \$1.00.....	172.00
25 Duplicate certificates at \$1.00.....	25.00
10 Certificates at \$2.00.....	20.00
243 Examinations at \$5.00.....	1,215.00
223 Graduates at \$2.00.....	456.00
4,018 Renewals at \$1.00.....	4,018.00
206 Licenses at \$100.00.....	20,600.00
Total.....	\$ 29,740.50

DISBURSEMENTS.

1903.

C. W. Phillips, salary	\$ 1,225.00
N. T. Hendrix, per diem.....	1,560.00
Fred Russell, per diem.....	1,560.00
Fletcher Howard, per diem.....	1,560.00
July 1st, C. W. Phillips, expense account	86.65
August 8d, C. W. Phillips, expense account.....	7.32
Fletcher Howard, expense account.....	45.78
Fred Russell, expense account.....	107.18
N. T. Hendrix, expense account.....	139.54
Long Bros., printing.....	9.00
October 2d, W. F. Giesseman.....	26.25
October 12th, Fletcher Howard, expense account.....	116.47
Robert Pike, office labor.....	40.00
November 5th, N. T. Hendrix, expense account.....	71.99
Robert Pike, office labor.....	20.00
Fred Russell, expense account.....	77.91

1904.

January 2d, C. W. Phillips, expense account.....	49.17
January 14th, Sadie Norris, office labor.....	15.00
January 23d, R. L. Polk & Co., directory.....	3.00
January 29th, W. F. Giesseman, certificates	18.00
February 1st, N. T. Hendrix, expense account	56.51
Fred Russell, expense account.....	86.83
Fletcher Howard, expense account.....	4.55
February 4th, Wiley Phillips, office labor.....	20.00
February 6th, C. W. Phillips, expense account.....	28.50
April 23d, Fletcher Howard, expense account.....	22.98
Fred Russell, expense account.....	86.42
N. T. Hendrix, expense account.....	208.26
C. W. Phillips, expense account.....	2.85
W. F. Giesseman, certificates.....	9.75
Long Bros., printing.....	80.00
G. S. Gilbertson, treasurer.....	18,700.00
Total.....	\$ 25,946.41
License fund on hand.....	\$ 2,800.00
Fee amount on hand.....	994.09
Total.....	\$ 3,794.09

TREASURER'S REPORT

From April 24, 1904, to July 1, 1904.

RECEIPTS.

License fund on hand April 24th	\$ 2,800.00	
Fee account on hand April 24th.....	994.00	
65 Changes of location at 50 cents.	32.50	
34 Delinquent renewals at \$1.00.....	34.00	
62 Licenses at \$100.00.....	6,200.00	
55 Graduates at \$2.00.....	110.00	
34 Examinations at \$5.00.....	170.00	
	<hr/>	
Total.....		\$ 10,840.50

DISBURSEMENTS.

O. W. Phillips, salary.....	\$ 250.00	
O. W. Phillips, expense account.....	19.87	
Fred Russell, per diem.....	290.00	
Fred Russell, expense account.....	75.27	
B. F. Keltz, per diem.....	290.00	
B. F. Keltz, expense account.....	97.24	
Fletcher Howard, per diem.....	290.00	
Fletcher Howard, expense account.....	7.90	
W. F. Giesseman, office expenses.....	18.25	
G. S. Gilbertson, treasurer.....	9,007.56	
	<hr/>	
Total.....		\$ 10,840.50

PHARMACY COMMISSION.

RECEIPTS AND DISBURSEMENTS

From July 1, 1904, to July 1, 1905.

RECEIPTS.

294 Licenses at \$100.....	\$ 24,900.00	
157 Graduates at \$2.00.....	814.00	
247 Examinations at \$5.00.....	1,235.00	
3 Certificates at \$2.00 ..	6.00	
18 Duplicate certificates at \$1.00.....	18.00	
4,071 Renewals at \$1.00.....	4,071.00	
128 Delinquent renewals at \$1.00.....	128.00	
407 Changes of location at 50 cents.....	203.50	
Total.....		\$ 80,870.50

DISBURSEMENTS.

Paid G. S. Gilbertson, treasurer—

August 1, 1904.....	\$ 1,115.50	
August 31, 1904.....	1,481.50	
October 14, 1904 ..	814.50	
November 15, 1904.....	1,581.50	
December 15, 1904.....	1,417.00	
January 14th, 1905.....	1,852.00	
February 15, 1905.....	2,519.50	
March 15, 1905.....	2,582.50	
April 15, 1905	2,645.00	
May 15, 1905.....	8,288.50	
June 15, 1905.....	8,742.50	
July 15, 1905	8,874.50	
Total		\$ 80,870.50

OFFICIAL RULES OF THE COMMISSIONERS OF PHARMACY.

The following rules have been adopted by the commission in accordance with the authority of Code, section 2584, as amended by the Twenty-Seventh General Assembly, 1898:

RULE 1. For the purpose of facilitating the enforcement of the pharmacy law, the state has been districted, and the counties assigned to each of the commissioners are as follows:

To Commissioner Fred Russell, Rockwell City.—Lyons, Osceola, Dickinson, Emmet, Kossuth, Palo Alto, Humboldt, Winnebago, Hancock, Sioux, O'Brien, Clay, Pocahontas, Buena Vista, Cherokee, Plymouth, Woodbury, Ida, Sac, Calhoun, Monona, Harrison, Shelby, Audubon, Guthrie, Dallas, Boone, Webster, Greene, Crawford, Carroll.

To Commissioner Bert F. Keltz, Webster City.—Worth, Mitchell, Howard, Winneshiek, Allamakee, Cerro Gordo, Floyd, Chickasaw, Fayette, Clayton, Wright, Franklin, Butler, Bremer, Hamilton, Hardin, Grundy, Black Hawk, Buchanan, Delaware, Dubuque, Story, Marshall, Tama, Benton, Linn, Jones, Jackson, Polk, Jasper, Poweshiek, Iowa, Johnson, Cedar, Clinton, Scott.

To Commissioner J. S. Goss, Atlantic.—Muscatine, Washington, Keokuk, Mahaska, Marion, Warren, Madison, Adair, Cass, Pottawattamie, Mills, Montgomery, Adams, Union, Clarke, Lucas, Monroe, Wapello, Jefferson, Henry, Des Moines, Lee, Van Buren, Davis, Appanoose, Wayne, Decatur, Ringgold, Taylor, Page, Fremont, Louisa.

All complaints of violation of the pharmacy law should be referred to the commissioner in whose district they occur.

RULE 2. All examinations in pharmacy will be held in the office of the pharmacy commission, at the capitol building, in the city of Des Moines, on the first Tuesday of February, April, June, August, October, and December, excepting when such day occurs on a legal holiday or a day usually observed as a holiday, when such examination will be held on the Thursday following.

RULE 3. All applications for examination shall be made upon blank forms which will be furnished by the secretary of the commission on request.

RULE 4. All applicants for examination must be 21 years of age, of good moral character, able to speak, read and write the English language, and

possessed of sufficient general education. Such applicant must have pursued the study of pharmacy for two full years in actual apprenticeship with a registered pharmacist in a drug store, or must be a graduate of a recognized medical school, who has been engaged for three years last past in the actual and active practice of medicine. But the time actually spent in a recognized school of pharmacy, not exceeding one year, shall be allowed as a credit on above time. Applicants are required to correctly answer 75 per cent of the questions submitted by the commission on examination.

RULE 5. Persons over 18 and under 21 years of age, possessing the other qualifications provided in rule 4, may be registered as assistant pharmacists and will receive certificates accordingly, and when the holder attains his majority, said certificate may be exchanged upon application for a certificate of full registration.

RULE 6. Graduates of pharmacy schools desiring registration will make application upon blanks to be furnished by the commission, accompanied by their diploma, and shall furnish such proof regarding the course of study pursued therein as may be required by the commission.

RULE 7. In all cases where registered pharmacists have two certificates of registration, the last certificate issued will supersede the former, and renewals will be required on the last one only.

RULE 8. Examinations shall be conducted in writing, and the applicant shall be allowed no assistance of any kind, verbal or oral, therein. Any applicant violating this rule and receiving aid in his examination may be summoned by the commissioners and required to submit to a new examination. Should the person so summoned refuse or neglect to obey the order of the commission, or should he appear from such second examination to be incompetent and not possessed of the requisite knowledge and skill, the commissioners will cancel his certificate and strike his name from the register. In like manner they will cancel the certificates of all persons who have secured registry by fraud or false representation.

RULE 9. Whenever application is made to the commission to revoke certificates of registration for violation of any of the laws governing registered pharmacists, the prosecution shall present and file with the secretary of this board a duly certified transcript of the final judgment of conviction, identifying the guilty party by giving the number of his or her certificate of registration. Upon the filing of the application for revocation, with the transcript aforesaid, the commission shall fix a time for the hearing thereof, and shall cause written notice of said complaint to be served upon the accused at least ten days prior to the time fixed for such hearing. Said notice shall in general terms inform the accused of the nature of the charge against him, and of the time when and of the place where the same will be heard. The accused may, on or before the day set for the hearing, show cause why his certificate should not be revoked.

RULE 10. Licenses issued to itinerant vendors of drugs, nostrums, ointments, 'or appliances of any kind for the treatment of disease or injury," by this commission, under the provisions of section 2594 of the code, can be transferred by the owner thereof sending the same to the secretary of the commission, who shall record the transfer and make the endorsement upon the license, and the transferee shall be entitled to use the same for the unexpired portion of the term.

RULE 11. All pharmacists are forbidden to sell any bitters, cordials, elixirs, wines, etc., put up in the form of proprietary medicines, where the same can be used as an intoxicant, unless the pharmacist holds a permit authorizing him to sell intoxicating liquors, and sale must be made then only in the same manner as any other intoxicating liquor, by requiring the purchaser to apply in writing thereof upon the regular form.

**FRED RUSSELL,
BERT F. KELTZ,
J. S. GOSS,
*Commissioners.***

NOTICE TO PHARMACISTS.

For the guidance and information of pharmacists throughout the state, the commissioners desire to call attention to some of the important provisions of the statute.

First.—That none but registered pharmacists can conduct a drug store or pharmacy; they must be the principals and managers of the store in *all its management*, neither can they allow any one not registered to sell medicines or poisons, or dispense physicians' prescriptions, except under their direct supervision. (See supreme court decision, *State v. Norton*, 67 Iowa, page 641.)

Second.—Sales of medicines and poisons can only be made by a proprietor, principal or clerk who is a registered pharmacist, and who is required to keep a record of all poisons sold, included in schedule A of section 2593 of the code.

Third.—The certificates of all registered pharmacists must be conspicuously posted in the place of business or pharmacy which they are conducting, or in which they are employed, with the renewal certificate placed in the lower left hand corner, and change of locality certificate (if they have changed their locality) in lower right hand corner of each certificate, to show to the public that their certificate of registration is in full force and effect.

Fourth.—All registered pharmacists when they change their locality are required to notify the secretary of the commission, and have their change of locality recorded, otherwise they are liable to a fine for each month's delinquency, and when so delinquent their certificates are not in full force and effect.

Fifth.—A registered pharmacist's certificate is regarded "in full force and effect," when he holds a renewal of his certificate from March 22d to March 22d of the current year, and change of locality certificate if he has changed his location, unless subsequently forfeited and revoked.

Sixth.—Annual renewals are not required or issued for the first part of a year preceding the 22d day of March; the pharmacist's certificate of registration is evidence that it is in full force and effect from the date of its issuance to the following 22d of March; however, the certified statement up to date of the secretary of the commission of pharmacy, under official seal of said commission, is regarded the best legal evidence as to whether a person is registered or not.

Seventh.—Registered pharmacists are exempt from jury duty. (See section 333, code of 1897.)

Eighth.—The code, section 2593, regulating the sale of poisons, is applicable to all patent preparations and non-secret preparations containing poisons enumerated in schedules "A" and "B."

It is unlawful for any person except a registered pharmacist to sell such preparations for any purpose whatever.

Ninth.—The sale of homeopathic medicines, except such as the law denominates "proprietary medicines," properly comes under the regulations of the pharmacy law, and all proprietary medicines containing poisons can be sold only by registered pharmacists as provided by the pharmacy law. The sale, therefore, of any quantity of poison or poisonous preparations enumerated in section 2593 of the code, or of proprietary medicines containing such poisons, can only be made by registered pharmacists. In our opinion, a technical construction is warranted in the sale of a single bottle of these remedies (except as provided in section 2593), for notwithstanding the contents of an entire bottle proved harmless, the purchase and use of several bottles of the same might be fatal.

Tenth.—It is impossible to keep a correct alphabetical list of names of the pharmacists of the state because of the constant change made in the list; we therefore earnestly request all registered pharmacists when corresponding with the commission to give the number of their certificates as well as their names.

FRED RUSSELL,
BERT F. KELTZ,
J. S. GOSS,
Commissioners.

[Code of 1887, as amended by Twenty-seventh General Assembly, 1898.]

CHAPTER 6.

TO REGULATE THE KEEPING AND SALE OF INTOXICATING LIQUORS BY REGISTERED PHARMACISTS.

SEC. 2385. *Permits.*—Persons holding permits may sell and dispense intoxicating liquors, not including malt liquors for pharmaceutical and medicinal purposes, and to permit holders for use and resale by them, only for the purpose authorized in this chapter; they may also sell and dispense alcohol for specified chemical and mechanical purposes, and wine for sacramental uses. Registered pharmacists, physicians holding certificates from the state board of medical examiners, and manufacturers of proprietary medicines may buy from permit holders intoxicating liquors (not including malt) for the purposes of compounding medicines, tinctures and extracts that can not be used as a beverage; but nothing herein contained shall be construed to authorize the manufacture or sale of any preparation or compound, under any name, form or device, which may be used as a beverage, and which is intoxicating in its character.

SEC. 2386. *Pharmacists—manufacturers of proprietary medicines.*—If any such registered pharmacist or manufacturer of proprietary medicines shall sell, barter, give, exchange dispose of or use intoxicating liquors in any manner or for any purpose other than authorized in the preceding section, he shall be liable to all the penalties and proceedings provided for in this chapter, and upon proof of such violation by a registered pharmacist, the clerk of the district or superior court shall transmit to the commissioners of pharmacy a certified copy of the record thereof within ten days after its entry, and upon receipt of such certified copy said commissioners may strike his name from the list of registered pharmacists and cancel his certificate. The commissioners of pharmacy are empowered to make such further rules and regulations, not inconsistent with law, with respect to the purchase, keeping and use of intoxicating liquors by registered pharmacists and manufacturers of proprietary medicines, as they shall think proper to prevent the abuses of the privilege, and shall revoke the certificate of registration of any pharmacist for repeated violations of this chapter. Said commissioners are authorized to draw from the state treasury an amount not exceeding 50 per cent of the clear proceeds of all fees collected and paid into the treasury of any county on account of violations of the provisions of this chapter or the chapter regulating the practice of pharmacy, prosecuted by the commissioners, the amount so drawn to be used solely in prosecutions instituted by them for failure to comply with the provisions of such chapters. The court or clerk thereof, before whom any prosecution is instituted or prosecuted by

the commissioners of pharmacy, shall certify to the auditor of state all such cases, and the amount of fees imposed and collected therein. The expenses thus incurred by the commission shall be audited by the executive council, and the amount thereof shall be drawn from time to time upon the warrants of the state auditor.

SEC. 2387. *Application for permit.*—All applications for a permit to sell intoxicating liquors for the purposes allowed in this chapter shall be by petition, signed and sworn to by the applicant, and filed in the office of the clerk of the district or superior court of the county or city in which the buying and selling is to be carried on, at least ten days before the term at which the matter is to be for trial, which petition shall set out the name of the applicant, his residence and business and that for the two previous years, the place, particularly describing it, where the business is to be conducted, that he is a citizen of the United States and of this state, that he is a registered pharmacist, that now and for the six months last past he has been lawfully conducting a pharmacy in the township, town or city wherein he proposes to engage in the business under the permit applied for; that he has not been adjudged guilty of any violation of the law relating to intoxicating liquors within the two years next preceeding the making of this application, is not the keeper of a hotel, eating house, saloon, restaurant or place of public amusement, and that he is not addicted to the use of intoxicating liquors as a beverage, and desires a permit to buy, keep and sell liquors for lawful purposes only. If the applicant has previously held a permit which has been revoked, his petition, in addition to the foregoing requirements, shall state that he has not, within the last two years next before making the application, knowingly been engaged, employed or interested in the unlawful manufacture, sale or keeping with intent to sell of intoxicating liquors.

SEC. 2388. *Notice.*—Notice of an application for a permit must be published once each week for three consecutive weeks in a newspaper regularly published and printed in the English language, and of general circulation in the township, town or city where the applicant proposes to conduct the business, or if none be regularly published therein, then in one of the papers selected by the board of supervisors for the publication of its proceedings, the last publication of which shall be not less than ten nor more than twenty days before the first day of the term at which the hearing is to be had. This notice shall state the name of the applicant, with the firm name, if any, under which he is doing business, the purpose of the application, the particular location of the place where the proposed business is to be carried on, and that the required petition is or will be on file in the clerk's office of the court (naming it) at least ten days before the first day of the term (naming it) when the application will be made. A copy of such notice shall be served upon the county attorney in the same manner and for the same length of time as is required of original notices in said courts.

SEC. 2389. *Hearing—remonstrances.*—Upon the return day of the notice, the court having, from an inspection of the record, ascertained that due and timely service thereof has been made, shall, if no remonstrance has been or is offered to be filed, unless for cause postponed to some other day in the

term, proceed to hear and try the application. Any remonstrance against or objection to the granting of the permit must be in writing and filed in the clerk's office by noon of the first day of the term, unless further time be given, and shall be so filed before the date fixed for the trial. Such remonstrance or objections may be made by any citizen of the county wherein the application is made, specifically stating the reasons therefor, and the court shall fix a day in the term of the trial, and all applications shall be tried at the first term after completed service has been made of the required notice, if the business of the court shall allow. No permit shall be granted unless the court shall find from competent evidence that all the averments in the petition are true, that the reasonable convenience and necessities of the people, considering the population and all the surroundings, make the granting of the permit proper, and that the applicant is possessed of the character and qualifications required, worthy of the trust to be reposed in him, and likely to discharge the same with fidelity. The county attorney shall appear in such cases, and any number of persons, not less than five, filing any remonstrance or objection, may also appear by counsel and resist the application. If more than one permit is applied for in the same locality, the applications shall be heard at the same time, unless for cause shown it be otherwise ordered. If for any reason the application cannot be tried in the term time, the same may be heard by the judge in vacation, at a time to be fixed by the court and made of record, and in all applications for permits the court may grant or refuse any or all applications, as will best subserve the public good.

SEC. 2390. *Bond.*—No permit shall issue until the applicant shall execute to the state a bond in the penal sum of \$1,000, with good and sufficient sureties to be approved by the clerk of the court, conditioned that he will well and truly observe and obey the laws of the state now and hereafter in force in relation to the sale of intoxicating liquors, that he will pay all fines, penalties, damages and costs that may be assessed or recovered against him for a violation of such laws during the time for which the permit is granted, and the principal and sureties in said bond shall be liable thereon, jointly and severally, for all civil damages and costs that may be recovered against the principal in any action brought by a wife, child, parent, guardian, employer or person under the provisions of this chapter. The bond, after being approved and recorded by the clerk, shall be deposited with the county auditor, and suit may be brought thereon at any time by the county attorney, or by any person for whose benefit the same is given. The clear proceeds of all other money which may be collected for breaches of the bond shall go to the school fund of the county. If at any time the sureties on the bond shall file with the court or clerk a written request for release, or become insolvent, or be deemed insufficient by the court granting the permit, or its clerk, such court or clerk shall require a new bond to be executed within a reasonable time to be fixed. If the permit holder fails or neglects to furnish a new bond within the time so fixed the permit shall from that date become null and void.

SEC. 2391. *Oath of applicant.*—in addition to giving the bond required, the applicant shall take and subscribe the following oath, which shall be indorsed upon the bond: “I,do solemnly swear (or affirm) that I will well and truly perform all and singular the conditions of the within bond, and keep and perform the trust confided in me to purchase, keep and sell intoxicating liquors. I will not sell, give or furnish to any person any intoxicating liquors otherwise than as provided by law, and especially I will not sell or furnish any intoxicating liquors to any person who is not known to me personally, or duly identified, nor to any minor, intoxicated person, or persons who are in the habit of becoming intoxicated; and I will make true, full and accurate returns of all certificates and requests made to or received by me as required by law; and said returns shall show every sale and delivery of such liquors made by me, or for me, during the months embraced therein, and the true signature to every request received and granted; and such returns shall show all the intoxicating liquors sold or delivered to any and every person, as returned.”

SEC. 2392. *Permit issued.*—Upon taking said oath and filing said bond, the clerk of the court granting the same shall issue a permit to the applicant, authorizing him to keep and sell intoxicating liquors as in this chapter provided. The permit so issued shall specify the building, give the street and number or location in which intoxicating liquors may be sold by virtue of the same, and the length of time the same shall be in force, unless sooner revoked. *Provided*, that upon the lease or destruction of the building where such business is conducted, or for other good and sufficient cause shown, consent in writing of the bondsmen having been obtained thereof, or a new bond given, the district court of the county which granted said permit, or a judge of said court, may change the place specified in said permit to some other place in the same city or township, upon motion thereof. A copy of said motion, and notice of the time when and the place where the same shall be heard, shall be given to the county attorney of the county where said place is situated at least five days before said hearing.

SEC. 2393. *Record—costs*—The clerk of the court granting the permit shall preserve, as part of the record and files in his office, all petitions, and other papers except bonds pertaining to the granting or revocation of permits, and keep suitable books in which bonds and permits shall be recorded. The books shall be furnished by the county like other public records. Whether said permit be granted or refused, the applicant shall pay the costs incurred in the case, and when granted he shall make payment before any permit issue, except the court may tax the cost of any witnesses summoned by private persons resisting said application, and the fees for serving such subpoenas, to such persons, when it is shown that such witnesses were summoned maliciously or without probable cause to believe their evidence material. The fees in such cases shall be as provided in actions at law in the district court.

SEC. 2394. *Requests to purchase.*—Before selling or delivering any intoxicating liquors to any person, a request must be signed by the applicant, in his true name, truly dated, stating the applicant is not a minor, his residence, for whom and whose use the liquor is required, and his true name and residence, and, where numbered, by street and number if in a city, the amount and kind required, the actual purpose for which the request is made and for what use desired, and that neither the applicant nor the person for whose use requested habitually uses intoxicating liquors as a beverage, and attested by the permit holder who receives and fills the request. The request shall be refused unless the permit holder has reason to believe the statement to be true, and in no case granted unless the permit holder filling it personally knows the person applying is not a minor, intoxicated, nor in the habit of using intoxicating liquors as a beverage; or if the applicant is not so personally known, before filing the order or delivering the liquor, he shall require identification, and the statement in writing of a reliable and trustworthy person, of good character and habits, known personally to him, that the applicant is not a minor, nor in the habit of using intoxicating liquors as a beverage, and is worthy of credit as to the truthfulness of the statements in the application; and this statement so made shall be signed by the witness in his own name, stating his residence correctly.

SEC. 2395. *Penalties.*—If any person shall make any false or fictitious signature, or sign any name other than his own to any paper required to be signed, or make any false statement in any paper or application signed to procure liquors, the person so offending shall be punished by a fine of not less than \$20 nor more than \$100 and costs of prosecution, and shall be committed until said fine and costs are paid, or shall be imprisoned not less than ten nor more than thirty days. If any permit holder or his clerk shall make false oath touching any matter required to be sworn to, the person so offending shall be punished as provided by law for perjury. If any person holding a permit under this chapter shall purchase or procure any intoxicating liquor otherwise than as herein authorized, or make any false return to the county auditor, or use any request for liquors for more than one sale, he shall be guilty of a misdemeanor and punished accordingly.

SEC. 2396. *Transportation by permit holder.*—Every permit holder is hereby authorized to ship to registered pharmacists and manufacturers of proprietary medicines intoxicating liquors to be used by them for the purposes authorized by law. All railway, transportation and express companies and other common carriers are authorized to receive and transport the same upon presentation of a certificate from the clerk of the district or superior court of the county where the permit holder resides, that such person is permitted to ship intoxicating liquors under the law of this state.

SEC. 2397. *Returns by permit holder.*—On or before the 15th day of January, March, May, July, September and November of each year each permit holder shall make full returns to the county auditor under oath, of all requests filled by him and his clerks during the two preceding months, which oath shall be in the following form: "I....., being duly sworn, on oath state that the requests for liquors herewith returned are all that were received and filled at my pharmacy (or place of business) during the months of A. D.....; that I have carefully preserved the same, and that they were filled up, signed and attested at the

date shown hereon, as provided by law; that said requests were filled by delivering the quantity and kinds of liquors required, and that no liquors have been sold or dispensed under color of my permit during said months except as shown by the requests herewith returned, and that I have faithfully observed and complied with the conditions of my bond and oath taken by me thereon indorsed, and with the laws relating to any duties in the premises."

SEC. 2398. *Account of purchase and sales.*—Every permit holder shall keep strict account of all liquors purchased or procured by him in a book kept for that purpose, which shall be subject at all times to the inspection of the commissioners of pharmacy, the county attorney any grand juror, sheriff or justice of the peace of the county, and such book shall show of whom such liquors were purchased or procured, the amount and kind, the date of receipt and amount sold; also the amount on hand of each kind for each two months, and at the same time he returns requests to the county auditor he shall file a statement of such account with such auditor, except that the items of sales need not be embraced therein, but the aggregate amount of each kind shall be verified. All forms necessary to carry out the provisions of this chapter not otherwise provided for shall be as may be provided by the commissioners of pharmacy.

SEC. 2399. *Illegal sales by permit holder—evidence.*—Every permit holder or his clerk shall be subject to all the penalties, forfeitures and judgments, and may be prosecuted by all the proceedings and actions criminal and civil, whether at law or in equity, provided for or authorized by this chapter and the permit shall not shield any person who abuses the trust imposed by it or violates the law. In case of conviction in any proceeding, civil or criminal, the liquors in possession of the permit holder shall by order of the court be destroyed, and on the trial of an action or proceeding against any person for manufacturing, selling, giving away or keeping with intent to sell intoxicating liquors in violation of law, or for any failure to comply with the conditions or duties imposed by law, the requests for liquors and returns made to the auditor, the quantity and kinds of liquors sold or kept, purchased or disposed of, the purpose for which liquors were obtained by or from him and for which they were used, the character and habits of sobriety or otherwise of the purchasers, shall be competent evidence, and may be considered, so far as applicable to the particular case, with any other recognized, competent and material facts and circumstances bearing on the issues involved in determining the ultimate facts. In any suit, prosecution or proceeding under this chapter the court shall compel the production in evidence of any books or papers required to be kept, and shall compell any permit holder, his clerk, or any person who has purchased liquors of either of them, to appear and give evidence, but such oral evidence shall not be used against such person or witness on the trial of any criminal proceeding against him.

SEC. 2400. *REVOCATION OF PERMIT.*—Permits shall be deemed trusts reposed in the recipients, and may be revoked upon sufficient showing by order of a court of judge. Complaint may be presented at any time to the district or superior court, or a judge thereof, which shall be in writing and signed and sworn to by three citizens of the county in which the permit was granted. A copy of the complaint shall, with a notice in writing of the time

and place of hearing, be served on the accused five days before the hearing, and if the complaint is sufficient, and the accused appear and deny the same, the court or judge shall proceed without delay, unless continued for cause, to hear and determine the controversy. If continued or appealed at the instance of the permit holder, his permit may, in the discretion of the court, be suspended pending the controversy. The complainant and accused may be heard in person or by council, or both, and proofs may be offered by the parties; and if it shall appear upon such hearing that the accused has in any way abused the trust, or that liquors are sold by the accused or his employes in violation of law, or dispensed unlawfully, or he has in any proceeding, civil or criminal, within the last two years, been adjudged guilty of violating any of the provisions of this chapter, the court or judge shall revoke and set aside the permit; the papers and order in such case shall be immediately returned to and filed by the clerk of the court, and, if heard by a judge, the order shall be entered of record as if made in court; and if in this or any other proceeding, civil or criminal, it shall be adjudged by the court or judge that any registered pharmacist, proprietor, or clerk, has been guilty of violation and provision of this chapter, such adjudication may be by the commissioners of pharmacy regarded as sufficient, if repeated, to work a forfeiture of his certificate of registration. It shall be the duty of the clerk to forward to the commissioners of pharmacy transcripts of such judgments or orders without charge therefor, and as soon as practicable after final judgment or order has been made and entered.

SEC. 2401. *How business conducted—clerks—physicians.*—A permit holder may employ not more than two registered pharmacists as clerks to sell intoxicating liquors in conformity to the permit and the law; but in such cases the acts of clerks in conducting the business shall be considered the acts of the permit holder, who shall be liable therefor as if he had personally done them, and in making returns, the verification of such requests as may have been received, attested and filed by the clerk must be made by such clerk, and the clerk who transacted any of the business under the permit must join in the general oath required of the employer, so far as relates to his own connection therewith. If for any cause a registered pharmacist who holds a permit shall cease to hold a valid and subsisting certificate of registration or renewal thereof, his permit shall be forfeited and be null and void. Nothing contained in this chapter shall be construed to prevent licensed physicians from in good faith dispensing liquors as medicines to patients actually sick and under their treatment. In case a permit holder shall die, his personal or legal representative may continue the business, subject to the provisions thereof, through the agency of any reputable registered pharmacist, upon the approval of the court granting such permit, or the clerk thereof, and the giving of a bond as hereinbefore provided. A partner who is a registered pharmacist, not holding a permit, shall have the same rights and be subject to the same restrictions as clerks, and for whose acts the permit holder shall be held responsible the same in all respects as for his clerks.

SEC. 2402. *Intoxication punished.*—If any person shall be found in a state of intoxication he is guilty of a misdemeanor, and any peace officer shall, without a warrant, take him into custody and detain him in some suitable place until an information can be made before a magistrate, and a warrant of arrest issued; under which he shall at once be taken before the magistrate issuing the same, or, if for any reason he cannot act, to the next nearest one, where he shall be tried, and, if found guilty, shall be fined in the sum of not less \$5 nor more than \$25 and costs of prosecution, or imprisonment in the county jail not more than thirty days, the penalty, or any portion of it, may be remitted by a magistrate before whom the trial is had, and the accused discharged from custody upon his giving information in writing and under oath, stating when, where and of whom he purchased or received the liquor which produced the intoxication, and the kind and character of this liquor, and, in addition, giving bail for his appearance before any court to give evidence in any action or complaint to be commenced or preferred against such party for furnishing the same.

SEC. 2403. *Selling or giving to minors or intoxicated person or persons in the habit of becoming intoxicated.*—No person by himself, agent or otherwise, shall in any manner procure for, or shall sell or give any intoxicating liquors to any minor for any purpose, except upon written order of his parent, guardian or family physician, or give to or in any manner procure or sell the same to any intoxicated person, or one in the habit of becoming intoxicated. Any person violating the provisions of this section shall forfeit and pay the sum of \$100 00 for each offense, to be collected by action against him; or, if a permit holder, against him and the sureties on his bond. Such action may be brought by any citizen of the county. One-half of the amount so collected shall go to the informer and one-half to the school fund of the county.

SEC. 2432. *Payment of mulct tax.*—Any permit holder selling intoxicating liquors as a beverage shall pay the tax provided for in this section.

CHAPTER 18.

OF PRACTICE OF PHARMACY.

SECTION 2584. *Commissioners—powers.*—The commission of pharmacy shall consist of three competent pharmacists who have been for the preceding five years residents of the state and engaged in practicing pharmacy, one of whom shall be annually appointed by the governor and hold office for three years and until his successor is appointed and qualified. The commission shall have power to make all needed regulations for its government and for the proper discharge of its duties under this chapter, the same to be done without expense to the state, save the necessary blanks and stationery, which shall upon requisition, be furnished by the secretary of state, and make such other regulations not inconsistent with law and as authorized in this code, respecting the purchase, keeping and use of intoxicating liquors by registered pharmacists not permit holders, as may be required for the prevention or abuse of the trust reposed in them, and such other matters as may be hereinafter specially enumerated.

SEC. 2585. *Secretary and treasurer.*—The commission of pharmacy shall annually, on the first Monday in May, elect a suitable person, who shall not be a member of said board, and who shall be known as secretary and treasurer; said secretary and treasurer shall enter upon the discharge of his duties as soon as he shall have filed with the secretary of state a good and sufficient bond in the penal sum of \$3,000, signed by at least two sureties, who shall justify in the aggregate to double the amount of the said bond, and which shall bear upon its face the approval of the governor. The salary of said secretary and treasurer shall not exceed \$1,500 per annum.

SEC. 2586. *License fees.*—The secretary and treasurer shall keep in his office a book known as the "commissioners of pharmacy license fee book," which shall be made with ruled columns and printed headings, showing the date, the name of the person paying, and the amount of each license and fee paid, in which he shall enter all fees for licenses received by him, and on the first Monday of each month he shall file with the auditor of state a true statement thereof for the previous month, properly sworn to by him, and shall quarterly pay into the state treasury, on the first day of January, April, July and October of each year, the amount of license fees payable by law into such treasury.

SEC. 2587. *Records—compensation.*—The books, accounts, vouchers and funds belonging to or kept by said board of pharmacy shall at all times be open or subject to the inspection of the governor, or any committee appointed by him. Each commissioner of pharmacy shall receive as full compensation for his services the sum of \$5 for each day actually employed

in the discharge of his official duties, together with his actual traveling expenses in performing said duties, all of which shall be paid from the fees of the office, and each commissioner shall file with the auditor of state, at the end of each quarter of his official year, an itemized statement under oath of his actual time in days employed in the discharge of his duty and traveling expenses incurred in the performance of his duty for such quarter.

SEC. 2588. *Registered Pharmacists.*—No person not a registered pharmacist shall conduct the business of selling at retail, compounding or dispensing drugs, medicines, or poisons, or chemicals for medical use, or compounding or dispensing physicians' prescriptions as a pharmacist, nor to allow anyone who is not a registered pharmacist to so sell, compound or dispense such drugs, medicines, poisons or chemicals, or physicians' prescriptions; except such as are assistants to and under the supervision of one who is a registered pharmacist, and physicians who dispense their own prescriptions only; but no one shall be prohibited by anything contained in this chapter from keeping and selling proprietary medicines and such other domestic medicines as do not contain intoxicating liquors or poisons, nor from selling concentrated lye or potash having written or printed on the package or parcel its true name and the word "poison," sales of which need not be registered. Whoever violates either provision of this section, for the former shall pay \$5 for each day of its violation, to be recovered in an action in the name of the state, brought by the county attorney under the direction of the commission, and for the latter shall be guilty of a misdemeanor, and punished accordingly. In actions or prosecutions under this chapter, it need not be proven that the defendant has not a pharmacist's certificate, but such fact shall be a matter of defense.

SEC. 2589. *Examinations—registration.*—The commission, at such times and places as it may select, and in such manner as it may determine upon, shall examine all persons desiring to engage in and conduct business as registered pharmacists, as contemplated in the preceding section, and, if found competent, the applicant's name shall be entered in the registry book of certificate holders. ("Graduates of pharmacy holding a diploma from the State University, or from any school or college of pharmacy requiring a course of study and laboratory work equivalent to that prescribed by the said State University in its catalogue for the year 1897-98, may be registered without examination") (Pharmacists thus registered have the sole right to keep and sell all medicines and poisons except intoxicating liquors.)

SEC. 2590. *Registration and examination fees.*—Each person furnished a certificate and registered without examination shall pay to the commission \$2, and each and every person whom they examine orally, or whose answers to a schedule of questions are returned subscribed under oath, the sum of \$5, which shall be in full for all services. And in case the examination of said person shall prove defective and unsatisfactory, and the name not be registered, he shall be permitted to present himself for re-examination within any period not exceeding twelve months next thereafter, and no charge shall be made for re-examination. The said commissioners are authorized to administer oaths pertaining to their said office and take and certify the acknowledgments of instruments in writing. After registration, an annual fee of \$1 for a renewal certificate shall be paid on or before the 221 day of March by all pharmacists who continue in business, and the conduct of such business without such renewal shall be a misdemeanor.

SEC. 2591. *Registry book—certificate displayed.*—The commission shall keep a registry book in which shall be recorded the names and places of residence of all certificate holders, with the date of such certificate, which shall hold good for one year, and no longer without renewal. Renewals shall be granted upon the payment of the annual fee fixed in the preceding section. Should a certificate holder change his residence, upon notice thereof such change shall be noted in the registry book. Each certificate holder shall keep displayed in his place of business his registration certificate. A failure to comply with this requirement shall be a misdemeanor.

SEC. 2592. *Sale of adulterated drugs.*—Registered pharmacists shall be responsible for the quality of all drugs, chemicals and medicines which they may sell or dispense, except those sold in the original packages of the manufacturer, and those known as patent medicines. If any such pharmacist shall knowingly adulterate or cause to be adulterated any drugs, chemicals or medical preparations by him kept for sale or sold, he shall be guilty of a misdemeanor.

SEC. 2593. *Sale of poisons.*—No person shall sell at retail any poisons enumerated in schedules A and B, except in dispensing poisons in usual quantities or doses upon the prescription of a physician, as follows: Schedule A, arsenic and its preparations, corrosive sublimate, white precipitate, red precipitate, biniodide of mercury, cyanide of potassium, hydro cyanic acid, strychnia and other poisonous vegetable alkaloids and their salts, essential oil of bitter almonds, opium and its preparations except paregoric and other preparations of opium containing less than two grains to the ounce. Schedule B, aconite, belladonna, colchium, conium, nux vomica, henbane, savin, ergot, cotton root, cantharides, creosote, digitalis, and the pharmaceutical preparations, croton oil, chloroform, chloral hydrate, sulphate of zinc, mineral acids, carbolic acid and oxalic acid; unless the package containing such poisons has placed thereon, and also the outside wrapper or cover, the name of the article, the word "poison," and the name and place of business of the seller; nor sell or deliver such poison unless upon due inquiry it be found that the party receiving it is aware of its character and represents it to be used for proper purposes; nor sell or deliver any of the poisons included in schedule A without also, before delivery of the same, causing an entry to be made in a book kept for that purpose, of the date of sale, the name and address of the purchaser, the name of the poison, the purpose for which it was represented to be required, and the name of the dispenser, which book shall be open for inspection by the proper authorities and preserved for at least five years, the entry of each such sale to be signed by the dispenser. Any person violating any of the provisions of this section, except as otherwise provided by law, shall be adjudged guilty of a misdemeanor and be punished by a fine of not less than \$25 nor more than \$100, or by imprisonment in the county jail for not less than thirty days nor more than sixty days, or by both fine and imprisonment, in the discretion of the court.

SEC. 2594. *Itinerant vendors of drugs.*—Any itinerant vendor of any drug, nostrum, ointment, or appliance of any kind for the treatment of any disease or injury, and all those who by any method publicly profess to treat or cure diseases, injury, or deformity, shall pay to the treasurer of the commission of pharmacy an annual fee of \$100, upon the receipt of which the

secretary of the commission shall issue a license for one year from its date; \$2,000 annually of the money arising from the license fund, or so much as may be needed, shall be devoted to defraying the expenses of the commission, and any balance remaining shall be paid into the state treasury. Said commission shall, on the first day of January of each year, make a verified and itemized statement in writing to the auditor of state, of all receipts and expenditures of money coming into their hands by virtue of their office. Any violation of this section shall be a misdemeanor, and any person shall, upon conviction thereof, pay a fine of not less than \$100, nor more than \$200. In actions or prosecutions under this chapter, it need not be proven that the defendant has not a license, but such fact shall be a matter of defense.

SEC. 2595. *Penalties for false representation.*—If any person shall procure or attempt to procure a certificate of registry for himself or another by means of false representations or device, or without being a registered pharmacist shall conduct a place for retailing, compounding or dispensing drugs, medicines or chemicals, or for compounding or dispensing physicians' prescriptions, or shall use or exhibit the title of registered pharmacist, and each several day a place shall be so used shall be held as a separate and several offense.

SEC. 2596. *Revocation of certificate.*—When a registered pharmacist has been convicted of a violation of the provisions of this chapter, in addition to the other penalties provided by law, the commission, in its discretion, may revoke his certificate of registry.

**ACT RELATING TO THE SALE OF COCAINE AND PROVIDING
PUNISHMENT FOR ILLEGAL SALE THEREOF.**

AMENDATORY OF CHAPTER 18 RELATING TO PRACTICE OF PHARMACY.

Be it Enacted by the General Assembly of the State of Iowa:

SECTION 1. No one, by himself, clerk, employe or agent, shall either directly or indirectly, sell or give away any cocaine, or preparation containing cocaine, except on the written prescription of a registered physician for medical purposes, and no such prescription shall be refilled except on the written order of a physician. However, nothing in this act shall be construed to prevent the sale thereof to a wholesale or retail dealer in drugs nor a registered physician, or licensed dentist for use in the practice of his profession.

SEC. 2. Any one found guilty of violating the provisions of section one, of this act, for the first offense, shall pay a fine of not less than twenty-five dollars, and not more than one hundred dollars and costs of prosecution. For the second offense and each subsequent offense, he shall pay on conviction thereof, a fine of not less than one hundred dollars, and not more than three hundred dollars, or imprisonment in the county jail not to exceed three months. Any clerk, employee or agent, violating or aiding in the violation of section one, shall be charged and convicted as principal.

SEC. 3. Peace officers shall see that the provisions of this act are faithfully executed within their respective jurisdictions, and when they are informed or have reasons to believe that this act has been violated, and the proof thereof can be had, they shall file information to that effect against the offending party before a magistrate, who thereupon shall proceed according to law. The county attorney shall prosecute the violators of this act.

SEC. 4. This act, being deemed of immediate importance, shall take effect and be in force, after its publication in the *Iowa State Register* and the *Des Moines Leader*, newspapers.

Approved March 22.

Published, March 25, 1902.

CERTIFICATE.

IOWA COMMISSIONERS OF PHARMACY. }
OFFICE OF THE SECRETARY, }
STATE CAPITOL, DES MOINES, IOWA. }

I, Charles W. Phillips, Secretary of the Commissioners of Pharmacy for the State of Iowa, hereby certify that the foregoing abstract of the state pharmacy register is copied from the original register on file in this office, and that the same is true and correct.

In testimony whereof, I have hereunto set my hand and affixed the seal of the commission this 1st day of September, A. D. 1905.

CHARLES W. PHILLIPS,
Secretary of the Commission.

ABSTRACT OF STATE PHARMACY REGISTER.

Showing Certificate Now in Force.

Number of cert.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
121	Arts, David	June 14, 1890	As owner	Donnellson	Red Oak.	
232	Anderson, A. A.	June 23, 1890	As assistant	Boone.		
333	Arnold, C. V.	June 4, 1890	As owner	Mt. Pleasant.		
1303	Arns, W. I.	June 15, 1890	As owner	Sheldon.		
1394		June 18, 1890	As owner	Wilton Junction.		
1367		July 24, 1890	By examination	Fort Madison.	Fort Madison.	
1381		October 5, 1890	By examination	Oaklaco.	Kelona.	Kansas City, Mo.
2061		April 27, 1891	By examination	Wellman	Bathven.	
2300		October 12, 1891	By examination	Manson		
2341		September 10, 1891	By examination	Leon		
2479		May 8, 1892	By examination	Webster City.		Grand Jo., Mo.
2508		August 1, 1892	By examination	Cedar Rapids.		
2531		February 23, 1893	By examination	Marion.		
2505		April 17, 1893	By examination	Logan.	Des Moines.	
2532		July 17, 1893	By examination	De Soto.	Vinton.	
2726		March 6, 1894	By examination	Des Moines		
2733		April 15, 1894	By examination	Humeston	Manchester.	
3036		June 15, 1895	By examination	Earville		
3129		February 23, 1897	By examination	Tingley.		Coon Rapids.
3146		March 1, 1897	By examination	Carroll.		
3311		April 5, 1897	By examination	Sheldahl.		
3332		October 8, 1897	As graduate	Mason City.		
3445		April 17, 1898	By examination	Sheldahl.		
3453		June 5, 1898	By examination	Nashua.		Nevada, Mo.
3504		August 21, 1898	By examination	Sheldon.		
3545		April 19, 1899	By examination	Webster City.	Williamsburg.	
3555		May 23, 1899	By examination	What Cheer.		
3593		July 29, 1899	Graduate	Manchester.		
3794		January 7, 1900	By examination	Kingsley.	Wesley.	Thornton.
3802		June 27, 1900	Graduate	Mason City.		

Ackley, F. E.	October	20, 1890	1	Foster	South Dakota.	In Missouri.
3061	August	15, 1891	1	Bancroft	.....	Colorado.
4099	August	7, 1891	1	Waterloo	.....
4101	November	8, 1891	1	Humboldt	.....
4181	April	6, 1892	1	Mason City	.....
4206	April	16, 1892	1	Osgo	.....
4220	May	19, 1892	1	Seymour	.....
4231	April	4, 1893	1	New Sharon	.....
4483	December	8, 1893	1	Aurora	.....
4533	November	14, 1893	1	Sandborn	.....
4544	January	14, 1894	1	Creston	.....
4569	February	6, 1894	1	Bellevue	.....
4687	March	6, 1894	1	Thor	.....
4694	June	6, 1894	1	Hartley	.....
4671	July	30, 1894	1	Maquoketa	.....
4700	August	14, 1894	1	Hull	.....
4710	August	24, 1894	1	Manchester	.....
4719	August	7, 1894	1	Lester	.....
4729	December	8, 1894	1	Deratur	.....
4788	March	12, 1894	1	Jefferson	.....
4843	April	12, 1894	1	Marshalltown	.....
4837	April	2, 1894	1	Marshalltown	.....
4866	April	7, 1895	1	Estherville	.....
4894	May	1, 1895	1	Cedar Rapids	.....
4923	September	1, 1895	1	Hubbard	.....
4937	October	3, 1895	1	Griswold	.....
4988	October	6, 1895	1	Greeley	.....
4943	November	4, 1895	1	Ruhven	.....
4958	December	7, 1895	1	Ellston	.....
4975	January	4, 1896	1	Sioux City	.....
4987	February	7, 1896	1	Rhodes	.....
5039	April	7, 1896	1	Grinnell	.....
5112	July	13, 1896	1	Hubbard	.....
5115	October	1, 1896	1	Council Bluffs	.....
5137	September	4, 1896	1	Spencer	.....
5148	September	2, 1897	1	Sheffield	.....
5209	March	6, 1897	1	Pella	.....
5249	April	5, 1897	1	Ridgeway	.....
5256	March	5, 1897	1	Conrad	.....
5330	October	7, 1897	1	Berea	.....
5368	December	1, 1898	1	Tingley	.....
5390	February	1, 1898	1	Ottumwa	.....
5403	March	5, 1898	1	Seymour	.....
5443	April	5, 1898	1	Clarion	.....
5472	April	7, 1898	1	Bancroft	.....
5477	April	8, 1898	1	Sioux City	.....
5479	June	3, 1898	1	Des Moines	.....
5534	August	7, 1898	1	Richland	.....
5594	September	1, 1898	1	Emmettsburg	.....
5600	September	7, 1898	1	By examination	.....
5608	November	1, 1898	1	By examination	.....
5644	March	7, 1899	1	By examination	.....
				Albia	Wallington	Kansas.
				Emerson	Nebraska	
				Lindsay	Nebraska	
				Cylinder		What Cheer.

ABSTRACT—CONTINUED.

Number of Certificate	Name	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
5043	Adam, W. C.	March 7, 1899	By examination	Elma	.....	In Washington.
5044	Anderson, A. O.	March 7, 1899	Graduate	Redfield	.....
5057	Anderson, George W.	May 17, 1899	Graduate	Sioux City	Homer, Neb.	
5100	Allen, D. A.	June 6, 1899	Graduate	Des Moines	Denver, Colo.	
5145	Anderson, Henry O.	August 18, 1899	By examination	Clear Lake	Ventura	
5196	" " W.	September 5, 1899	Graduate	Council Bluffs	Dwight, Ill.	
5208	" " "	December 5, 1899	Graduate	Alison	.....	Rockwell.
5251	" " "	December 5, 1899	By examination	Boone	Ogden	
5294	" " "	December 6, 1899	Graduate	Des Moines	Lansing	
5302	" " "	March 6, 1900	By examination	Fontanelle	Washita	
5334	" " "	September 6, 1900	By examination	Dayton	St. Dodge	
5379	" " "	December 4, 1900	Graduate	Des Moines	.....	In Michigan.
5427	" " "	December 4, 1900	By examination	Mason City	.....
5501	" " "	January 1, 1901	"	Des Moines	Chicago, Ill.	
5505	" " "	January 1, 1901	"	St. Ansgar	Conlter	
5522	" " "	February 5, 1901	"	Oelwein	.....
5559	" " "	April 2, 1901	"	Council Bluffs	.....
5614	" " "	June 4, 1901	"	Cylinder	.....
5623	" " "	September 8, 1901	"	Emerson	.....
5624	" " "	September 8, 1901	"	Crawfordville	Muscatine	
5631	" " "	September 8, 1901	"	St. Ansgar	Bonaparte	
5656	" " "	October 1, 1901	"	Shenandoah	Clarinda	
5675	" " "	November 11, 1901	"	Independence	Ryan	
5697	" " "	December 8, 1901	"	Manchester	Floyd	
5731	" " "	January 6, 1902	"	Cedar Rapids	Albia	
5732	" " "	January 8, 1902	"	Four Corners	Albia	
5735	" " "	January 7, 1902	"	Kalo	.....
5739	" " "	January 7, 1902	"	Garden Grove	Oaccola	
5745	" " "	February 4, 1902	"	Grinnell	Allerton	
5824	" " "	April 1, 1902	"	Inwood	Shelden	
5831	" " "	April 1, 1902	"	Council Bluffs	.....
5891	" " "	June 8, 1902	"	Keota	Centerville	
5894	" " "	August 5, 1902	"	What Cheer	.....
5905	" " "	August 5, 1902	"	Sioux City	.....
5912	" " "	August 21, 1902	"	Sioux City	.....
5911	Allen, Ralph J.	September 10, 1902	"	Sioux City	Kansas City, Mo.	In California.
5952	Armstrong, Fred J.	September 7, 1902	"	Carroll	Bathven	
5961	Anderson, J. B.	September 7, 1902	"	Des Moines	Rippey	

Althouse, Wm.	November	6, 1903	Graduate	Cedar Rapids	Chicago, Ill.
Altflsch, Otto.	December	2, 1902	By examination.	Bellevue	Portland, Ind.
Alexander, J. C.	February	3, 1904	Graduate	Des Moines	
Andrews, J. P.	July	-1, 1903	Graduate	Des Moines	
Aldrich, Harry E.	July	14, 1903	By examination	Oreston	Iowa City.
Amber, Henry L.	October	6, 1903	Graduate	Dubuque	Iowa City.
Ankrum, Fred L.	October	6, 1903	Graduate	Sheldon	Co fax.
Andrews, James	October	6, 1903	Graduate	Des Moines	Indiana.
Antes, W. L.	October	6, 1903		Breda	
Alden, F. C.	October	6, 1903	1	Marengo	
Arno, Ed. O.	November	2, 1903		Dubuque	Illinois.
Adams, J. E.	December	1, 1904		Iowa Falls	Stour Rapids.
Adams, J. A.	February	2, 1904	Graduate	Havlock	Vail.
Andas, E. E.	May	20, 1904	Graduate	Gray	Blackton.
Anderson, E. T.	May	20, 1904	Graduate	Granton	
Anderson, A. O.	June	7, 1904	By examination.	Linn Grove	Greenfield.
Allison, Chas. H.	August	2, 1904	Graduate	Murray	
Arnold, Ed. B. Jr.	August	2, 1904	Graduate	Davenport	
Alvay, W. H.	October	4, 1904	Graduate	Waterloo	
Arin, A. S.	December	6, 1904	Graduate	Adel	Nebraska.
Adams, Geo. W.	December	6, 1904	Graduate	Corning	Tabor.
	February	7, 1905	By examination	Des Moines	Vail.
	February	7, 1905	Graduate	Ottumwa	
	February	7, 1905	Graduate	Des Moines	
	February	7, 1905	Graduate	Independence	Waverly.
	April	2, 1905	Graduate	Waterloo	Indiana.
	July	12, 1905	Graduate	Unionville	
	July	12, 1905	By examination.	Clinton	
	August	1, 1905	Graduate	Des Moines	Illinois.
	August	1, 1905	Graduate	Des Moines	Illinois.
	June	5, 1890	As owner	Dixon	
Burnside, J. M.	June	7, 1890	As owner	Waucoma	
Boerner, H. W.	June	16, 1890	As owner	Iowa City	
Beardsley, William.	June	4, 1890	As owner	Reacon	Birmingham.
Bailey, A. S.	June	7, 1890	As owner	Cromwell	Lorimer.
Bohlinger, G. F.	June	21, 1890	As assistant	Carroll	
	June	10, 1890	As owner	Clarence	
	June	12, 1890	As owner	Denmark	
	June	9, 1890	As owner	Davenport	
	June	24, 1890	As owner	Prescott	
	June	17, 1890	As principal	Elkader	
	June	2, 1890	As owner	Fairfield	
	June	8, 1890	As owner	Hampton	
	June	8, 1890	As owner	Colerburg	
	June	30, 1890	As assistant	Davenport	
	June	30, 1890	As owner	Spirit Lake	
	June	30, 1890	As assistant	Cedar Rapids	
	July	1, 1890	As owner	Moulton	
Blosser, George W.	July	7, 1890	As assistant	Van Wert	
Bolding, A. L.	July	1, 1890	As owner	Boesman	Conrad Grove.
Bowman, J. E.	July	8, 1890	As owner		

ABSTRACT—CONTINUED.

Number of certificate of reg.	Name	Date of Registration.	How Registered	Place of Registration.	Latest Reported Address.	Remarks.
945	Birney, C. C.	June 26, 1880	As owner	Nora Springs.	Mason City.	
1042	Beechler, George N.	June 7, 1880	As owner	Oakalosa.	Garner.	
1142	Birney, Catharine	June 6, 1880	As owner	Nora Springs		
1175	Brown, William K.	June 8, 1880	As owner	Dubuque.		
1181	Brimhall, S. M.	June 7, 1880	As owner	State Center.	Schaller.	
1182	"	June 8, 1880	As owner	State Center.		
1202	"	June 7, 1880	As owner	State Center.		
1254	"	June 8, 1880	As owner	Troy Mills.		
1286	"	June 2, 1880	As owner	Vinton.		
1284	"	June 20, 1880	As owner	Floyd		
1595	"	July 24, 1880	As owner	Walnut		
1557	"	July 26, 1880	As owner	Edgewood.		
1558	Blanchard, Lewis	July 26, 1880	As owner	Edgewood.	Woodward.	
1613	Brookings, D. J.	August 18, 1880	As owner	Waverly.		
1691	Broadie, A. A.	August 2, 1880	By examination	Wyoming.		
1824	Babcock, E. M.	November 3, 1880	As owner	Kinross.	Marango.	
1830	Baughman, O. F.	November 8, 1880	As assistant	Oakalosa.	Fairbank.	
1864	Bentley, N. J.	August 8, 1880	By examination	Fonda		
1896	Rothwell, G. W.	November 11, 1880	By examination	Bonaparte.		
1931	Blackman, B. P.	November 24, 1880	As owner	Tipton.	Allison.	
1980	Brotherlin, H. L.	December 31, 1880	By examination	Holland.		
2081	"	April 11, 1881	By examination	Muscatine.		
2098	"	February 17, 1881	By examination	Clarinda.		
2150	"	June 20, 1881	By examination	Council Bluffs.	Iowa City.	
2187	"	August 2, 1881	By examination	Tracer	Mason City.	
2253	"	October 19, 1881	By examination	Marshalltown	Sioux Center.	
2303	"	January 9, 1882	By examination	Leroy	Bedford.	
2390	"	February 24, 1881	By examination	Waverly	Letta.	
2395	"	February 25, 1882	By examination	Rockford.	Floyd.	
2405	"	April 25, 1882	By examination	Marango	Ladora.	
2441	"	May 17, 1882	By examination	New Hampton.		
2448	"	June 9, 1882	By examination	Moulton.		
2454	"	May 22, 1882	By examination	West Bend.		
2497	"	July 11, 1882	By examination	Des Moines.	Estherville.	
2511	Bauer, William S.	August 8, 1882	By examination	Calliope.	Spokane, Wash.	
2523	Brower, J. H.	September 5, 1882	By examination	Wheatland	Keystone.	
2531	Stelenberg, J. R.	September 14, 1882	By examination			

2555	Byrne, J. A.	December 14, 1882	By examination	Marshalltown	Colfax	Washington.
2557	Elby, A. M.	January 16, 1883	By examination	Harvard	Galva.	
2557	Baron, H. B.	March 20, 1883	By examination	Orange City	Pella.	
2555		June 20, 1883	By examination	Irwin.		
2703		November 28, 1883	By examination	Red Oak	Sioux City.	
2803		September 18, 1884	By examination	Fayette	Lake City.	
2834		December 30, 1884	By examination	Lenox.		
2881		May 25, 1885	By examination	Ames.		Des Moines.
2919		September 7, 1885	By examination	Bloomfield		
2947		November 3, 1885	By examination	Cedar Rapids.	Farmington.	
2975		February 2, 1886	By examination	Pulaski	Oelwein.	
2997		March 28, 1886	By examination	West Union		
3030		May 18, 1886	By examination	Ladon	Webster City.	
3050		July 20, 1886	By examination	Iowa City	Clear Lake.	
3050		July 27, 1886	By examination	Mapleton	Council Bluffs.	
3074		September 18, 1886	By examination	Des Moines	Stanhope.	In Kansas City.
3079		September 31, 1886	By examination	Cedar Falls		
3080		September 20, 1886	By examination	Des Moines		In Massachusetts.
3104		December 7, 1886	By examination	Albia		
3116		March 25, 1887	Graduate	Muscatine.		
3118		January 24, 1887	By examination	West Union		
3126		March 16, 1887	By examination	Quasqueton.		
3128		March 21, 1887	By examination	Ossian.	Waverly.	
3155		February 25, 1887	By examination	Albia		
3161		February 24, 1887	By examination	Vinton		
3163		February 24, 1887	By examination	Iowa City.		
3163		March 15, 1887	By examination	Council Bluffs.		
3179		March 18, 1887	By examination	Grand River.		
3216		April 19, 1887	By examination	Andon	Brayton.	
3246		May 17, 1887	By examination	Bancroft.	Mt. Vernon.	
3276		July 7, 1887	Graduate	Iowa City.		
3302		August 15, 1887	Graduate	Cherokee.		
3303		August 15, 1887	Graduate	Rattle Creek.		
3303		September 9, 1887	By examination	Mason City	Cal.	Miss.
3312		September 6, 1887	By examination	De Witt		
3346		November 15, 1887	By examination	Clinton.		
3395		January 4, 1888	By examination	Chariton.	Ocean.	
3423		March 23, 1888	By examination	Postville		
3444		April 17, 1888	By examination	Sioux City.		
3457		May 15, 1888	By examination	Sioux City		
3457		July 5, 1888	By examination	Colfax	Des Moines.	In Wisconsin.
3491		July 17, 1888	By examination	Boyd.		
3502		August 10, 1888	By examination	Oto	Schaller.	
3514		August 28, 1888	By examination	Essex		
3519		September 4, 1888	By examination	Winterset	Pleasantville.	Centerville.
3537		September 5, 1888	By examination	Rockford.		
3545		October 16, 1888	By examination	Moulton	Ottumwa.	
3584		January 25, 1889	By examination	Marengo		Quincy, Ill.
3587		January 14, 1889	By examination	Shellsburg.		
3585		February 11, 1889	By examination	Kellogg.		

Baro, O. B.
Brincken, Anton
Beck, W. R.
Bartholomew, H. H.
Bergen, O. C.
Birchard, Rufus

ABSTRACT—CONTINUED.

Number of per	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
3507	Blair, C. A.	February 12, 1889	By examination.	Creston	Cherokee.	
3521	Brown, S. W.	March 19, 1889	By examination.	Nashua.	La Porte City.	
3526	Blanchard, H. J.	May 25, 1889	By examination.	Elkader		
3531	Bender, G. B.	July 25, 1889	By examination.	Spencer.		
3532	Batterworth, H. O.	August 10, 1889	Graduate.	Maquoketa.		
3533	Baile, H. H.	August 11, 1889	Graduate.	Waverly.		
3535	Barnes, Warren A.	August 23, 1889	By examination.	Foster.	Ottumwa.	
3541	Bain, John	October 1, 1889	By examination.	Brandon.	Lincol.	
3555	Beaman, James D.	October 28, 1889	By examination.	Chariton.	Oswego.	
3553	Belknap, W. R.	November 26, 1889	By examination.	Prairie Grove		
3582	Bell, L. L.	December 16, 1889	By examination.	West Side.		
3583	Bentley, H. F.	December 16, 1889	By examination.	Cedar Falls	Hampton.	
3517	Bentley, Charles H.	January 21, 1890	By examination.	Mapleton	Pocahontas.	
3538	Barnes, D. D.	February 3, 1890	By examination.	Maxwell	Winteret	
3590	Brimhall, W. F.	February 18, 1890	By examination.	State Center.		
3590	Brink, H. J.	March 18, 1890	By examination.	Rensen	Doon.	
3551	Briggs, George H.	March 18, 1890	Graduate.	Nevada		In California.
3577	Brown, L. H.	April 15, 1890	Graduate.	West Branch	Iowa City.	
3589	Berry, A. S.	May 4, 1890	Graduate.	Moulton	Penama.	
3583	Brown, H. C.	May 20, 1890	By examination.	Marango	Oxford.	
3522	Blackman, R. E.	August 29, 1890	By examination.	Sioux City	Des Moines.	
3535	Brown, H. F.	September 19, 1890	By examination.	Fonda	Armstrong.	
3571	Brown, H. F.	January 31, 1891	By examination.	Rodney	Buck Grove.	
3583		March 8, 1891	By examination.	Cedar Rapids.	St. Louis.	
4000		March 8, 1891	By examination.	Toledo	St. Louis Falls, S. D.	
4004		March 7, 1891	By examination.	Riveride	Chicago, Ill.	
4021		April 8, 1891	By examination.	Elkader.		
4031	T	May 8, 1891	By examination.	Sioux City	Mason City.	
4052	A	May 19, 1891	By examination.	Oto.		
4058		June 2, 1891	By examination.	Spirit Lake	Lake Park.	
4064		August 4, 1891	By examination.	Burlington	Prairieburg.	
4112	F	September 1, 1891	By examination.	Shellsburg	Knarville.	
4128		October 21, 1891	By examination.	Andrew	Maquoketa.	
4139	Boonett, William Q.	November 10, 1891	By examination.	Woodbine.		
4148	Blakely, J. H.	November 30, 1891	By examination.	Fort Dodge	Newell.	
4149	Blair, Frank L.	December 1, 1891	By examination.	Des Moines	Oakalosa.	
				Clarinda	Oreston.	

4174	Berkalow, W. B.	February	2, 1892	By examination.	Atalissa.	West Liberty.
4184	Barlow, O. J.	February	18, 1892	By examination.	Des Moines.	
4187	Beard, Winfield S.	February	20, 1892	By examination.	Decorah City.	
4188	Busby, John B.	February	26, 1892	By examination.	Oskaloosa.	Rose Hill.
4205	Bolding, W. R.	March	20, 1893	By examination.	Atvord.	Oakville.
4215	Hertsch, George P.	April	5, 1893	By examination.	Sigourney.	Oskaloosa.
4235	.....	May	17, 1892	By examination.	Reife.	West Bend.
4241	.....	June	7, 1892	By examination.	Columbus Junction.	
4251	.....	June	27, 1892	Graduate.	McGregor.	
4260	.....	July	2, 1892	Graduate.	Davenport.	
4290	.....	August	2, 1892	By examination.	Keota.	Hedrick.
4291	.....	August	2, 1891	By examination.	Bloomfield.	Denver, Col.
4292	.....	August	17, 1892	Graduate.	Alden.	Iowa Falls.
4311	.....	June	6, 1892	By examination.	Des Moines.	
4364	.....	June	31, 1893	By examination.	Lamoni.	
4369	.....	June	31, 1893	By examination.	Sloan.	Blanco.
4374	.....	February	7, 1893	By examination.	Gardner.	Plymouth.
4375	.....	February	22, 1893	By examination.	Dubuque.	
4376	.....	March	7, 1893	By examination.	Bibley.	Cresco.
4414	Blair, Milton M.	March	24, 1893	By examination.	Little Rock.	Meervey.
4444	Blagburn, John F.	May	2, 1893	By examination.	Creston.	
4491	Burgett, Alva W.	May	2, 1893	By examination.	Des Moines.	
4479	Burns, I. W.	June	24, 1893	By examination.	West Union.	
4506	Baird, T. J.	September	5, 1893	By examination.	Decorah.	Stanley.
4515	.....	October	31, 1893	By examination.	Wyoming.	
4512	.....	November	8, 1893	By examination.	Ottumwa.	Mason City.
4528	.....	November	28, 1893	By examination.	Maquoketa.	
4531	.....	December	12, 1893	By examination.	Dunlap.	Mallard.
4555	.....	December	19, 1893	By examination.	Van Horne.	
4580	.....	February	6, 1894	By examination.	Adel.	Busey.
4623	.....	March	8, 1893	By examination.	Clermont.	Wadena.
4641	.....	April	8, 1894	By examination.	Moulton.	Arizona.
4647	.....	April	10, 1894	By examination.	Clarion.	Wallingford.
4654	.....	June	5, 1893	By examination.	Grand Junction.	Nebraska.
4665	.....	June	5, 1894	By examination.	Missouri Valley.	
4666	.....	June	4, 1894	By examination.	Anamona.	
4668	.....	August	7, 1894	By examination.	Kearar.	Belmond.
4703	.....	May	2, 1893	By examination.	Modale.	
4715	.....	October	12, 1894	By examination.	Manilla.	Lenart, Ill.
4749	.....	December	4, 1894	By examination.	Morning Sun.	Lone Tree.
4771	.....	December	18, 1894	By examination.	Des Moines.	Ledyard.
4804	.....	January	2, 1894	By examination.	Bellevue.	Dyersville.
4828	.....	March	5, 1895	By examination.	Des Moines.	
4812	.....	March	12, 1895	By examination.	Maquoketa.	
4845	.....	March	18, 1895	By examination.	Panora.	
4847	.....	March	19, 1895	By examination.	Des Moines.	See City.
4890	Bundy, Edgar A.	April	2, 1895	By examination.	Anrella.	
4892	Boyer, W. M.	April	2, 1895	By examination.	Hamburg.	
4916	Birney, Emma H.	May	7, 1895	By examination.	Nora Springs.	Mason City.
4889	Barrager, Emory L.	May	18, 1894	By examination.	Ashton.	Sheldon.

In Colorado.

In Montana.

In Texas.

ABSTRACT—CONTINUED.

Number of certificate.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
4898	June 4, 1894	By examination.	George Bayard.	Des Moines.	
4910	August 18, 1894	.....	Kingsley	Arnold's Park.	
4915	October 2, 1895	By examination.	Adel	Eldora.	
4940	October 29, 1895	By examination.	Davenport		
4967	H.	December 14, 1895	By examination.	Delhi	McCallsburg.	
4968	December 31, 1895	By examination.	Colesburg.		
4984	Bush, John A.	February 4, 1896	By examination.	Cedar Falls	Cedar Rapids.	
4985	Boyson, G. H.	February 4, 1896	By examination.	Creston	California.	
4992	Berkie, John F.	February 4, 1896	By examination.	Burlington.		
5002	Bartlett, W. S.	February 4, 1896	By examination.	Lenox	Wellman.	
5008	Bull, A. S.	March 8, 1896	By examination.	Janeville	Monona.	
5045	Ballentine, W. A.	April 7, 1896	By examination.	Northwood		In S. Dakota.
5057	April 7, 1896	By examination.	Strawberry Point.		
5079	May 5, 1896	By examination.	Colfax.	Delta.	
5109	July 7, 1896	By examination.	Marshalltown.	Royal.	
5105	July 7, 1896	By examination.	Iowa City		St. Paul, Minn.
5141	July 7, 1896	By examination.	Olin.		
5165	September 1, 1896	By examination.	Bellevue.	Dubuque.	
5175	December 1, 1896	By examination.	Rockford.		
5177	December 1, 1896	By examination.	De Witt.		
5188	January 14, 1897	By examination.	Boone		
5210	March 2, 1897	By examination.	Davenport.		In Washington.
5294	March 9, 1897	By examination.	Iowa City		In Kansas.
5246	April 6, 1897	By examination.	Conrad.		In Missouri.
5265	April 6, 1897	By examination.	Lost Nation.	Tabor.	
5267	April 4, 1897	By examination.	Northwood.		
5295	May 1, 1897	By examination.	Rulien	Laurana.	
5290	June 8, 1897	By examination.	Dyersville.	Farley.	
5304	August 8, 1897	By examination.	Schaller.		
5305	August 8, 1897	By examination.	Webster City.		
5306	August 21, 1897	Graduate.	Des Moines.	Monaparte.	
5315	September 7, 1897	By examination.	Waukegan	Packwood.	
5317	September 5, 1897	By examination.	Goodell.		
5339	October 10, 1897	By examination.	Leon.		
5353	October 4, 1897	By examination.	Glouster City.		
5361	November 9, 1897	By examination.	Monticello.	Durdee.	
5366	November 9, 1897	By examination.			

ABSTRACT—CONTINUED.

Number of certificate	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
5945	Broadgate, Frank L.	March	By examination.	Spencer	Peterson.	
5970	Berner, Carl A.	April	By examination.	Stuart.	Gladwin.	
5972	Barki, Adolph.	April	By examination.	Sec City.	Rock Island, Ill.	
5977	Bieber, Bernard H.	April	By examination.	Havenport.	Ames.	
5983	Bauer, Arthur	April	By examination.	Marshalltown.	Sioux City.	
5994	Brown, F. Victor	May	Graduate	Des Moines.	Stanton.	
6004	Baker, Melvin I.	May	Graduate	Marshalltown.	Toledo.	
6006	Banesh, Emil	May	Graduate	Vining		
6012		May	Graduate	Shenandoah.		
6022		May	By examination.	Durant.		
6028		June	Graduate	Sioux City.		
6031	G	June	Graduate	Algona.	Muscatine.	
6036		June	Graduate	Shannon City.	Des Moines.	
6047		June	By examination.	Des Moines.	Galt.	
6059		June	By examination.	Mt. Vernon.		
6080		June	By examination.	Nevada.	Fairfield.	
6083		August	Graduate	Des Moines.		In Colorado.
6092		August	Graduate	Waterloo.	Danville, Ill.	
6116		September		Dundee	Marshalltown.	
6128		September		Everly.		
6134		September		Spencer.		
6136		September		Brandon.		
6147		September		St. Ansgar.	Waterloo.	
6154		October		Daymour.		
6168		November		Des Moines.		In Arkansas
6167		November		Edgewood.		
6176		November		Victor	Damont	
6231		February		Sanborn		
6233		February		Le Claire.		In Missouri.
6237		March		Irwin	Hayward.	
6252		April		Winthrop.	Ohio, Mich.	
6274		May		Essex		
6294		May		Des Moines.		
6308	Brooks, A. H.	May		Hawkeye.		
6310	Brolans, J. G.	May		Orange City.	Woodward.	
6315	Bonwell, Oda M.	June		Des Moines.	Murray.	
6317	Bemis, F. Clyde	June		Lehigh	Pioneer.	

No.	Name	Date	Month	Place	Status	City	State
6360	Burns, James F.	June	1901	Eddyville	Graduate	Charles City	In Colorado.
6361		August	6, 1901	Deerfield	Graduate		
6362		August	6, 1901	Des Moines	Graduate		In Colorado.
6363		August	6, 1901	Perry	Graduate		In Nebraska.
6364		August	6, 1901	Des Moines	Graduate		In Illinois.
6365		October	1, 1901	Des Moines		Council Bluffs	
6366		October	1, 1901	Laurens			
6367		October	1, 1901	Seymour			
6368		October	1, 1901	Des Moines			In Penn.
6369		November	7, 1901	Des Moines			In South D.
6370		November	7, 1901	Independence			
6371		November	7, 1901	Atkinson			
6372		November	7, 1901	Colfax			
6373		December	8, 1901	Urbana		Lake City	
6374		December	8, 1901	Manson		Ft. Dodge	
6375		January	6, 1902	Elkader			In Wisconsin.
6376		January	6, 1902	Paulina			In Minnesota.
6377		January	6, 1902	Des Moines			In Nebraska.
6378		January	6, 1902	Des Moines			
6379		March	4, 1902	Independence		Oedar Rapids	
6380		March	4, 1902	Manchester			
6381		March	4, 1902	Spencer			
6382		March	4, 1902	Bedfield		Audubon	
6383		March	4, 1902	Des Moines		Webster City	
6384		March	4, 1902	Des Moines		Exira	
6385		April	1, 1902	Clermont		Mitchell	
6386		April	1, 1902	Iowa City	Graduate		In South D.
6387		April	1, 1902	Iowa City	Graduate		In Illinois.
6388		April	1, 1902	Des Moines			
6389		April	1, 1902	Des Moines		Dundee	
6390		April	1, 1902	Des Moines		Davenport	
6391		April	1, 1901	Parkersburg		Tabor	
6392		April	1, 1901	Whiting			
6393		May	5, 1902	Keokuk			
6394		May	5, 1902	Britt		Lake Mills	In Kansas.
6395		May	5, 1902	Vincennes			
6396		May	5, 1902	Des Moines			
6397		May	5, 1902	Sanborn		Council Bluffs	In North D.
6398		May	5, 1902	Mason City		Tipton	
6399		June	8, 1902	Ryan			
6400		June	20, 1902	Sioux City			
6401		July	5, 1902	Yale			
6402		August	5, 1902	Knoxville			
6403		August	5, 1902	Earville		Marshalltown	
6404		August	5, 1902	Parnell		Bradgate	
6405		August	5, 1902	Hampton			In Illinois.
6406		August	5, 1902	Des Moines			
6407		August	5, 1902	Yale		Flover	
6408		August	5, 1902	St. Benedict			
6409		August	21, 1902	Des Moines			In Ohio.
6410		August	21, 1902	Panora		Yale	
6411		October	7, 1902				
6412	Bohn, Gertrude						
6413	Binford, O. F.						
6414	Boyer, H. B.						

ABSTRACT—CONTINUED.

Number of certificate.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
6978	Benesh, Theo	August	Graduate	Toledo.	Vining.	In South D.
6979	Brecht, Ernest A	October	Graduate	Des Moines.		In Missouri.
6980	Bowen, C. W.	October	By examination.	Des Moines.		
6981	Bakka, L. H.	October	By examination.	McCallsburg.		
6982	Berryman, Chas. S.	November	Graduate	Des Moines.		In Illinois.
6983	Boone, F. M.	December	By examination.	Grand River.		
6984	Burson, A. G.	December	By examination.	Fonda.	Spokane, Wash.	
6985	Brown, L. H.	December	By examination.	Lamont.	Central City.	
6986	Beach, B. F.	December	By examination.	Shenandoah.		
6987	Batterton, C. E.	February	Graduate	Clinton.		In Illinois.
6988	Brock, G. D.	February	By examination.	Iowa Falls.	Klemme.	
6989	Berkley, Chas. H.	February	By examination.	Logan.	Villisca.	
6990	Baker, Robt.	February	By examination.	Eldon.	Des Moines.	
6991	Benson, M. D.	February	By examination.	Randall.	Ringsted.	
6992	Bass, Robt. W.	February	By examination.	Rose Hill.	Ute	
6993	Bosworth, A. S.	April	By examination.	Wapello.	Columbus City.	
6994	Barker, H. M.	April	By examination.	Brigham.	Bloomfield.	
6995	Buesch, Andrew E.	April	Graduate	Dubuque.		
7006	Bozarth, E. G.	June	Graduate	Des Moines.		Indian Ter.
7007	Ball, W. D.	June	By examination.	Council Bluffs.	Marble Rock.	
7008	Baird, A. H.	June	Graduate	Malvern.		
7009	Book, J. R.	July	Graduate	Griswold.	Clearfield.	
7010	Brown, A. N.	July	"	Missouri Valley.		
7011	Boehme, O. W.	February	"	Exira.	Osceola.	
7012	Biesnecker, John	August	"	Melbourne.	Collins.	
7013	Botaford, C. W.	August	"	Farley.	Dubuque.	
7014	Boar, O. S.	August	"	Ashton.	Sibley.	
7015	Ball, John F. A.	August	By examination.	Gladbrook.		
7016	Berry, J. C.	August	"	Belmond.		
7017	Borwey, G. A.	August	"	Eagle Grove.		
7018	Bush, C. O.	October	Graduate	Des Moines.		In Indiana.
7019	Blandin, Ralph	October	"	Ottumwa.	Logan.	
7020	Bell, R. R.	October	"	Des Moines.	What Cheer.	
7021	Burgess, C. W.	October	"	Panora.		
7022	Brown, Mel	October	By examination.	Monroe.		
7023	Brodie, Jas. A.	October	"	Earlville.		
7024	Bosworth, C. D.	October	"	Madrid.	Manchester.	

7218	Bean, J. L.....	October	6, 1903	By examination.....	Andubon	Farlin.	
7236	Boehme, C. A.....	December	1, 1903	Graduate	Hampton.....	Indiana.	Kansas.
7237	Brown, F. O.....	December	1, 1903	"	Muscatine		
7238	Bates, R. E.....	February	2, 1904	"	Grinnell.....		
7239	Brown, F. H.....	February	2, 1904	By examination ..	Des Moines		Missouri.
7296	Bergman, W. H.....	February	2, 1904	"	Oelwein	Ft. Madison.	
7297	Brant, W. J.....	February	2, 1904	"	Corning	Glenwood.	
7320	Bennett, N. B.....	April	5, 1904	Graduate	Lorah		Wyoming.
7340	Brenneck, H. H.....	April	5, 1904	By examination....	Waterloo.....		
7341	Bogle, W. T.....	April	5, 1904	"	Bonaparte.....		
7342	Burkhart, A. C.....	April	5, 1904	"	Hawkeye.....		
7367	Blum, A. O.....	April	20, 1904	Graduate	Des Moines.....		Illinois.
7368	Benn, Arthur R.....	April	20, 1904	"	Council Bluffs		Indiana.
7427	Beckman, C.....	August	7, 1904	"	Muscatine	Hartley.	
7453	Broderick, P. H.....	August	2, 1904	"	Hull	Little Rock.	
7454	Broderick, P. H.....	August	2, 1904	"	Earling	Grundy Center.	
7518	Buckmaster, L. M.....	October	4, 1904	"	Dumont	Aredale.	
7509	Bannister, Iowa.....	October	4, 1904	Graduate	Des Moines.....	North Dakota.	
7531	Booth, G. C.....	December	6, 1904	"	Herndon.....		
7532	Barry, R. A.....	December	6, 1904	"	Manchester	Anamosa.	
7542	Bennett, F. W.....	December	6, 1904	"	Peterson	Nebraska.	
7547	Brown, Geo. B.....	December	6, 1904	By examination....	Clarion.....	West Side.	
7553	Biddleman, H. R.....	December	6, 1904	"	Thornburg		
7556	Baldwin, Frank.....	December	6, 1904	"	Chariton.....		
7557	Beery, M. H.....	February	7, 1905	"	Churdan.....		
7594	Brenniman, E. M.....	February	7, 1905	"	Ackley.....		
7620	Barker, J. E.....	April	22, 1905	Graduate.....	Manning.....		
7649	Borjesson, Axel.....	April	6, 1905	By examination....	Andubon.....		
7653	Beacom, P. A.....	June	19, 1905	Graduate.....	Sheldon.....		
7654	Burrows, O. A.....	June	19, 1905	"	Sheldon.....		
7676	Ballman, F. F.....	June	19, 1905	"	Des Moines.....	Illinois.	
7687	Breen, W. T.....	July	12, 1905	"	Des Moines.....	Illinois.	
7690	Burshel, P. J.....	July	12, 1905	"	Saint Olaf.....		
7692	Bell, Ed.....	July	12, 1905	"	Des Moines.....		
7694	Burket, G. T.....	July	12, 1905	"	Hawarden.....		
7702	Belanger, J. A.....	July	12, 1905	By examination....	Des Moines.....	North Dakota.	
7709	Brynteson, Chas.....	July	12, 1905	"	Odebolt.....		
7723	Barney, Fred.....	August	1, 1905	Graduate.....	Paulina.....		
7726	Brunner, C. E.....	August	1, 1905	"	Sloan.....		
7734	Baldwin, Edwin.....	August	1, 1905	"	Des Moines.....	Scranton.	
7747	Burkey, J. V.....	August	1, 1905	By examination....	Casey.....	Atlantic.	
7736	Beck, Allan F.....	August	1, 1905	"	Ft. Dodge.....		
7757	Beard, W. E. J.....	August	1, 1905	"	De Witt.....		
7758	Barragy, C. J.....	August	1, 1905	"	Rockwell.....		
10	Cain, John G.....	June	7, 1880	As owner	Polo.....		
18	Cross, John T.....	June	2, 1880	"	Farmington.....		
91	Clure, Joseph.....	June	9, 1880	"	Elliott.....	Des Moines.	
178	Cloughly, William.....	June	12, 1880	"	Andubon.....		
214	Carter, George.....	June	14, 1880	"	Le Mars.....		
244	Cherry, J. W.....	June	7, 1880	"	Afton.....	Creston.	

ABSTRACT—CONTINUED.

Number of certificates	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
492	Cole, T. R.	June 22, 1890	As owner	Marysville.		
600	Cole, John L.	June 15, 1890	"	Greene.		
616	Crow, William M.	June 6, 1890	"	Grand Junction.		
707	Camp, Americus	June 4, 1890	"	Kellerton.		
708	Camp, Marshall	June 4, 1890	"	Kellerton.		
990	Charcill, Frank	July 5, 1890	As assistant	Burlington.		
1007	Castle, Charles A.	June 16, 1890	"	Ottumwa.		
1151	Childs, H. A.	July 6, 1890	As owner	Lenox.		
1263	Coffin, R. M.	June 9, 1890	"	Tama City.		
1301	Cook, William A.	June 18, 1890	"	Washington.		
1405	Gummins, M. L.	July 14, 1890	"	La Porte City.		
1421	Clark, Eston K.	June 26, 1890	"	Seymour.		
1499	Cole, D. L.	July 8, 1890	"	Bu-sy	Oskaloosa.	
1809	Clark, Edwin A.	August 27, 1890	"	Davenport.	Princeton.	
1670	Carroll, J. M.	September 17, 1890	By examination	Pomeroy	Laurens.	
1688	"	August 26, 1890	"	Fort Dodge.		
1881	"	October 14, 1890	"	Mason City	Hamontown.	
1890	"	August 30, 1890	"	Mount Etna.	Des Moines.	
2126	"	May 27, 1891	"	Union.		
2135	"	May 26, 1891	"	Riverside.		
2163	"	July 12, 1891	"	Keokuk.		
2173	"	July 25, 1891	"	Afton	Shannon City.	
2194	"	August 19, 1891	"	Manchester.		
2304	"	August 10, 1891	"	Lewis		
2330	"	August 26, 1891	"	Ottumwa	Grant	
2334	"	September 1, 1891	"	Storm Lake.	Des Moines.	
2355	"	November 4, 1891	"	Oggon.	Alta.	
2351	"	February 26, 1892	"	Farmhamville.		In Illinois.
2449	"	June 6, 1892	"	Coggon.		
2522	"	April 24, 1893	"	Le Mar.	Goldfield.	
2545	"	September 12, 1893	"	Lake City.		In Polo, Ill.
2601	"	October 22, 1893	"	Council Bluffs.		
2740	"	April 15, 1894	"	Collins.		
2792	"	August 5, 1894	"	Magnolia		
2872	"	April 21, 1895	"	Greene	Boone.	
2949	"	December 1, 1895	"	Greene		
2974	Cole, George T.	February 2, 1896	"	Greene		

No.	Name	Month	Date	By examination	Place	In
3900	Cady, Edward E.	March	9, 1898	By examination	Cherokee	Seattle, Wash.
3906	Cole, I. G.	May	13, 1899	"	Williams	Jewell
3971	Caplin, Pascal T.	September	7, 1896	"	Emmetsburg	West Bend.
3981	Cope, W. L.	October	5, 1896	"	Atalusa	Muscotine
3983	Colvin, A. W.	October	5, 1896	"	Manchester	.....
3913		January	4, 1897	"	Kewick	.....
3923		February	15, 1897	"	Rolla	.....
3924		October	4, 1897	"	Winterset	.....
3956		December	16, 1898	"	Des Moines	.....
3984		February	27, 1898	Graduate	Ottumwa	.....
3990		February	20, 1898	By examination	Rockwell City	Ashton
3994		April	4, 1898	"	Clinton	.....
3993		August	21, 1898	"	Mapleton	Emerson, Neb.
3993		September	18, 1898	"	Deep River	.....
3999		October	29, 1898	"	Sioux City	.....
3992		February	19, 1899	"	Washington	Cedar Rapids
3993		March	19, 1899	"	New Hampton	Ocheyedan
3993		April	9, 1899	"	Boone	Ames
3997		April	23, 1899	"	Davenport	.....
3951		May	7, 1899	Graduate	South English	Jewell
3970		May	31, 1899	By examination	Dayton	.....
3970		June	18, 1899	"	Nichols	.....
3970		August	20, 1899	"	Clinton	Buxton
3973		September	8, 1899	"	Garner	Estherville
3986		September	17, 1899	"	Spencer	Waterloo
3984		November	6, 1899	By examination	Council Bluffs	Center Point
3984		December	16, 1899	"	Iowa City	Akron
3987		December	19, 1899	"	West Union	Cedar Rapids
3987		January	7, 1899	"	Rodney	Bloomfield
3914		January	29, 1899	"	Gilman	.....
3919		February	4, 1899	"	Greco	.....
3914		February	26, 1899	"	Ft. Dodge	.....
3933		March	4, 1899	"	Crawfordville	.....
3973		March	1, 1899	"	Fairfield	Jewell
3973		April	15, 1899	Graduate	Dayton	.....
3919		August	5, 1899	By examination	Salix	.....
3974		January	18, 1899	"	Hurlington	California
3984		February	8, 1899	"	Renwick	Jewell
4033	Cunningham, C. L.	March	30, 1891	"	Des Moines	Woden
4043	Curtis, H. E.	May	1, 1891	"	Menio	Rock Island, Ill.
4073	Crow, A. B.	June	2, 1891	"	Salmon	.....
4095	Coltrane, M. B.	August	5, 1891	"	Thayer	Aiton
5078	Crow, Will	August	11, 1891	"	Olermont	.....
455	Cowan, John D.	December	3, 1891	"	Iowa Falls	Charles City
4168	Clements, I. W.	February	1, 1892	"	Marengo	.....
4176	Coveny, T. H.	February	6, 1892	"	Knoxville	Eldora
4185	Carmichael, C. O.	February	23, 1892	"	Ashton	Lehrville
4183	Carpenter, O. O.	February	26, 1892	"	Galeburg	Sully
4200	Collins, E. C.	March	7, 1892	Graduate	Red Oak	Emerson
4201	Cox, James Edward	March	12, 1892	"	Des Moines	.....

In Minnesota.

In South Dakota.

ABSTRACT—CONTINUED.

Number of certificate	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
4209	Coppock, William.	April	By examination.	Mason City.	Council Bluffs.	
4210	Cozad, C. B.	April	"	Prairie City.		
4243	Cuplin, H. S.	June	"	West Bend.	Bondurant.	
4248	Calkins, H. G.	June	"	Anita.		
4258	Culverson, F. P.	June	"	Greenfield.	Colo.	
4271	Carver, E. J.	July	"	Collins.	Ft. Dodge.	
4276	Corey, O. S.	July	"	Lehigh.		
4308	Cole, H. B.	September	"	Renwick.		
4328	Cogan, F. L.	November	"	Conrad.	Titonka.	
4332	Crawford, Harry B.	November	"	Wilton Junction.	Herndon.	
4338	Carris, E. O.	November	"	Des Moines.	Washington.	
4363	Converse, L. E.	December	"	Fort Dodge.	Lehrville.	
4361	Campbell, L. R.	December	"	Davenport.		
4362	Coad, James A.	January	"	Hull.	South Dakota.	In South Dakota
4363	Caasavaw, George H.	January	"	Montezuma.	North Dakota.	
4382	Crain, W. L.	February	"	Lone Tree.	Cushing.	
4388	Cowles, V. D.	February	"	Des Moines.		
4406	Corfe, William N.	March	"	Union.		
4422	Crabbe, A. N.	March	"	Menlo.	Guthrie Center.	Memphis, Mo.
4427	Campbell, R. W.	April	"	Keokuk.		
4439	Carlisle, Glenn M.	April	"	Muscatine.	Diagonal.	
4456	Olemmer, P. O.	May	"	Cresco.		
4465	Olark, G. N.	June	"	Parkersburg.		
4466	Ounningham, C. E.	June	"	Oakaloosa.		
4483	Carman, C. P.	July	"	Cedar Rapids.		
4489	Cady, Frank C.	August	"	Atlantic.	Chicago, Ill.	
4499	Carton, John A.	August	"	Ackley.	Britt.	
4501	Chapman, J. M.	August	"	Princeton.	Sioux City.	
4505	Oronk, Alfred P.	August	"	Montour.	Wapello.	
4557	Cooper, George E.	December	"	Peterson.	Canada.	
4563	Cushman, R. A.	January	"	Sanborn.	California.	
4572	Childress, M.	February	"	Unionville.	Davenport.	
4593	Carre, G. E.	March	"	Pleasant Plain.	Winfield.	In Wisconsin.
4595	Cooke, F. W.	March	"	Swaledale.		
4596	Conklin, W. S.	March	"	Des Moines.		
4610	Culver, Edgar R.	March	"	Sibley.	Primghar.	
4627	Coad, N. G. O.	April	"	Hull.		

4604	April	17, 1894	By examination	Renwick.	Galesburg.	
4604	June	19, 1894	"	Des Moines.		
4675	June	5, 1894	"	Denison.		
4681	October	12, 1893	"	Grand Junction.	Libertyville.	
4723	September	4, 1894	"	Correctionville.		
4750	October	2, 1894	"	Toledo.		
4764	October	30, 1894	"	Wilson Junction.	Davenport.	
4766	November	12, 1894	"	Cedar Rapids.	Idaho.	
4775	November	13, 1894	"	Knoxville.	California.	
4782	December	4, 1894	"	Laurens.	Randall.	
4785	December	4, 1894	"	Chelsea.	Colfax.	
4818	February	6, 1895	"	Kennettburg.	Gracettinger.	
4839	March	5, 1895	"	Knoxville.	Arkansas.	
4894	March	5, 1895	"	Iowa Falls.	Mason City.	
4904	April	2, 1894	"	What Cheer.	Oskaloosa.	
4922	June	5, 1894	"	Wapello.	Mediapolis.	
4918	June	5, 1894	"	Marion.	Salix.	
4966	August	9, 1895	"	Union.		
4977	September	10, 1895	"	Livermore.	Algona.	
4984	September	10, 1894	"	Wapello.	Clemmons, Mont.	
4996	December	3, 1895	"	Wall Lake.		
5005	December	3, 1895	"	West Union.	Winthrop.	
5005	February	4, 1896	"	Des Moines.	Oskaloosa.	
5045	February	25, 1893	By examination	Kewick.		
5045	April	7, 1896	"	Monkton.	Unionville.	In Missouri.
5065	June	2, 1896	"	Manchester.		
5183	June	2, 1896	"	Milton.	Park City, Mont.	
5184	January	3, 1894	"	Fairfield.		
5147	December	1, 1896	Graduate	Davenport.		
5164	September	2, 1896	By examination	Des Moines.		
5178	October	6, 1894	"	Des Moines.	Fairbury, Neb.	In Arkansas.
5212	November	10, 1893	"	Tracy.	Oelwein.	
5226	December	1, 1896	"	Buffalo Center.	Thompson.	
5257	March	9, 1897	"	Quasqueton.	Iowa City.	
5258	July	6, 1897	"	Bristolow.	Klemme.	
5258	July	5, 1897	"	Morning Sun.		
5262	August	7, 1897	Graduate	Carson.	Kansas City, Mo.	
5270	November	9, 1897	By examination	Gilbert Station.	Ogden.	
5300	January	4, 1896	"	Farragut.	Clutier.	
5335	January	4, 1896	"	North English.		
5383	February	1, 1896	"	Lenox.	California.	
5389	February	1, 1896	"	Manchester.	Sheldon.	
5391	February	1, 1896	"	Sibley.	Sioux Rapids.	
5425	March	1, 1898	"	Laurens.		
5427	August	8, 1898	"	Sioux Rapids.		
5459	April	5, 1898	"	Eldon.		
5460	April	5, 1898	"	Ottumwa.		
5461	April	5, 1896	"	Mason City.		
5463	May	5, 1896	"	Cedar Falls.		
5493	June	7, 1896	"	Ocheyedan.	Minneapolis, Minn.	
5493	June	7, 1896	"	Ocheyedan.		

Childs, I. B.	November	8, 1900	Graduate	Petala	Bark.
Cockerill, R. F.	December	4, 1900	By examination	Uhurden	Lehigh.
Calpin, J. F.	December	4, 1900	"	Clinton	Eldora.
Carey, John F.	December	4, 1900	"	Clinton	Webster City.
Clem, Steve M.	February	5, 1901	Graduate	Shenandoah	Easez.
W	May	7, 1901	"	Cedar Rapids	Norway.
A	May	7, 1901	"	Carson	Tingley.
	May	7, 1901	"	Alta	
	May	7, 1901	"	Muscantine	
	May	8, 1901	"	Farragut	
	May	8, 1901	"	Perry	
	June	4, 1901	"	Maxwell	
	June	4, 1901	"	Red Oak	
	June	4, 1901	By examination	Ogden	
Casey, D. W.	June	4, 1901	"	Lime Springs, Minn.	
Cooper, T. C. B.	June	4, 1901	Graduate	Des Moines	
Craw, James H.	July	2, 1901	"	Des Moines	
Coffee, Sid J.	July	2, 1901	"	Des Moines	Stour City.
Crum, R. J. R.	August	6, 1901	Graduate	Nora Springs	
Cuttler, Tyna M.	August	6, 1901	"	Zearing	
Cooper, Anna V.	August	6, 1901	"	Des Moines	
Chaloupka, Edward C.	August	6, 1901	"	Burlington	
Cook, C. P.	August	6, 1901	"	Ottley	Tracy.
Croby, Lottie E.	September	8, 1901	By examination	Menlo	
Cowser, Chas. C.	September	8, 1901	"	Des Moines	Stuart
Cowles, E. U.	October	1, 1901	Graduate	Council Bluffs	Schaller.
Claassen, C. N.	October	1, 1901	By examination	Cedar Falls	Ventura.
Chick, Chas. W.	November	11, 1901	Graduate	Mason City	St. Paul.
Chin, Chas. E.	December	8, 1901	By examination	Golfax	Deep River.
Cowan, H. L.	December	8, 1901	"	Clinton	Iowa Falls.
Cady, Wm. E.	February	4, 1902	Graduate	Albia	Illinoia.
Cramer, Ralph	March	4, 1902	By examination	Farlin	Atlantic.
Crain, Mattie	April	1, 1902	Graduate	Farlin	Deep River.
Crain, Louis F.	April	1, 1902	"	Ames	
Care, Elmer L.	April	1, 1902	"	New Hampton	Cedar Rapids.
Clark, C. A.	April	1, 1902	By examination	Rockwell City	
Cummins, Wm. M.	May	5, 1902	Graduate	Des Moines	In Illinoia.
Crowley, S. R.	May	6, 1902	By examination	Clear Lake	In S. Dakota.
Cities, A. M.	June	8, 1902	Graduate	Woodbine	
Carvlon, Rose E.	June	20, 1902	"	Des Moines	Emerson.
Cutler, Emmet M.	June	5, 1902	"	Atlantic	
Cady, John R.	August	5, 1902	"	Ottumwa	
Cady, Clarence W.	August	5, 1902	By examination	Jeanp.	Barnum.
Cadwalader, J. M.	August	5, 1902	"	Ogden	
Cooker, W. H.	August	5, 1902	"	Council Bluffs	
Clark, S. P.	August	5, 1902	"	Des Moines	
Carrig, Blanch M.	October	7, 1902	Graduate	Knorrville	Ames.
Cavanagh, Thos. J.	November	4, 1902	By examination		
Carle, Edgner E.	December	2, 1902	"		

ABSTRACT—CONTINUED.

Number of certificates.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
6916	Cameron, Harry D	February 8, 1903	Graduate	Stout City.	Oorwith.	
6942		February 8, 1903	By examination	Stout City.		
6943		February 8, 1903	"	Hampton.		
6944		February 8, 1903	"	Bayard.		
6964		March 8, 1903	Graduate	Newhall.	Mt. Pleasant.	
6966		March 8, 1903	"	Des Moines.	Enterprise.	
6968		April 7, 1903	By examination	Des Moines.	Alexander.	
6980		April 7, 1903	"	Perry	Iowa City.	
7029		April 22, 1903	"	Lacona.	Columbia.	
7049		June 2, 1903	Graduate	Laverne.		
7060		June 2, 1903	"	Hull.		
7094		August 14, 1903	By examination	Henderson.		
7106		August 4, 1903	Graduate	Fonda.	Hynes.	
7107		August 4, 1903	"	Greenfield.		
7108		August 4, 1903	"	Des Moines	Utopia.	
7109		August 4, 1903	"	Dubuque	Illinois.	
7118		April 22, 1903	"	Waukon	Templeton.	
7156		October 6, 1903	"	Burlington	What Cheer.	
7167		October 6, 1903	"	Des Moines	Illinois.	
7190		October 6, 1903	By examination	Des Moines	Illinois.	
7217		November 2, 1903	Graduate	Dubuque	New Mexico.	
7218		November 2, 1903	"	Otermount	Rudd.	
7266		February 2, 1904	"	Oakland	Illinois.	
7267		February 10, 1904	"	Galva	Waukon.	
7281		April 5, 1904	By examination	Des Moines	Wyoming.	
7343		April 5, 1904	"	Newhall.		
7345		April 5, 1904	"	Dows	Harlan.	
7344		April 5, 1904	"	Atalissa.		
7416		July 1, 1904	Graduate	South English.		
7431		July 1, 1904	"	Iowa City.		
7439		July 1, 1904	"	Dubuque	Wisconsin.	
7437		July 1, 1904	"	Stout City.		
7438		July 1, 1904	"	Dubuque	North Dakota.	
7439		July 1, 1904	"	Waterloo	Illinois.	
7456		August 2, 1904	"	Macedonia.	Traer.	
7457		August 2, 1904	"	Des Moines.	Marathon.	
7458		August 2, 1904	"	Rowan.		

7490	August	2, 1904	By examination	New Hampton	Minnesota
7519	October	4, 1904	Graduate	Osage	New Jersey
7528	October	4, 1904	"	Des Moines	Alabama
7534	December	6, 1904	"	Des Moines	Harcourt
7551	December	6, 1904	By examination	Clare	
7598	February	7, 1905	"	Webster City	
7600	February	7, 1905	"	Lenox	
7605	April	4, 1905	"	Bolfe	South Dakota
7616	April	2, 1905	Graduate	Des Moines	
7624	June	6, 1905	"	Des Moines	
7650	June	6, 1905	By examination	Owasa	South Dakota
7655	June	6, 1905	Graduate	Des Moines	North Dakota
7668	July	12, 1905	"	Des Moines	Clermont
7715	August	1, 1905	"	West Union	South Dakota
7728	August	1, 1905	"	Decatur	Kansas
7735	August	1, 1905	"	Des Moines	Atlantic
7745	August	1, 1905	By examination	Valley Junction	
7759	August	1, 1905	"	Des Moines	
205	June	21, 1880	As owner	Bellevue	
220	June	15, 1880	"	Le Mars	
840	June	12, 1880	"	Center Point	
763	June	7, 1880	"	Lewis	
868	June	5, 1880	As assistant	Muscataine	
917	July	1, 1880	As owner	Derby	Denver, Col.
922	July	24, 1880	As principal	Centerville	
1023	June	19, 1880	As owner	Oxford	
1060	June	7, 1880	"	Postville	
1584	August	7, 1880	"	Dumont	
1656	August	30, 1880	"	Council Bluffs	Red Oak
1662	August	2, 1880	By examination	Marshalltown	
1908	July	30, 1880	"	Iowa City	
2243	September	28, 1881	"	De Kalb	
2292	November	1, 1881	"	Nassau	
2324	December	27, 1881	"	Guthrie Center	
2329	January	24, 1882	"	Newell	
2433	May	10, 1882	"	Lucas	
2554	December	19, 1882	"	Peterson	
2564	January	9, 1883	"	Columbus Junction	
2565	March	9, 1885	"	Ferguson	
2947	April	21, 1885	"	Calmar	
2862	June	5, 1885	"	Dysart	
2991	July	8, 1885	"	Davenport	
2993	September	8, 1885	"	Orange City	
2998	January	8, 1886	"	Boone	
2998	February	17, 1886	"	Dunlap	
3070	May	19, 1886	"	Marshalltown	
3011	June	15, 1886	"	Radcliff	
3062	June	16, 1886	"	Maquoketa	
3084	July	20, 1886	"	Pomeroy	
3069	March	1, 1887	"	Humboldt	
8191					

Out of business.

In Sabetha, Kas.

Council Bluffs.

Perry.

Estherville.

Spencer.

Bellevue.

Charter Oak.

ABSTRACT—CONTINUED.

Number of certificate	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
3291	Dingman, G. W. Jr.	August 15, 1887	By examination	Urbana.	.....	In Pierce, Neb.
3316	Donaldson, W. B.	September 19, 1887	"	Salem	.....	"
3318	Damman, Fred W.	September 30, 1887	"	St. Anthony.	Sutherland.	"
3321	"	September 27, 1887	"	Algona.	.....	"
3349	"	November 29, 1887	"	Des Moines.	.....	In California.
3383	"	February 24, 1888	"	Frederick	Tripoli.	Waterloo.
3398	"	February 22, 1888	"	"	Brighton.	"
3459	"	May 18, 1888	"	"	Redfield.	"
3477	"	August 30, 1888	"	"	Indiana.	"
3563	"	January 20, 1889	"	"	Charles City.	"
3605	"	February 6, 1889	"	"	Hamburg.	"
3642	"	April 16, 1889	"	"	Rockwell City.	"
3643	"	August 10, 1889	"	"	Des Moines.	"
3705	"	October 14, 1889	"	"	Colfax.	"
3750	"	December 16, 1889	"	"	Springville.	"
3784	"	December 30, 1889	"	"	Ottumwa.	"
3791	"	January 20, 1890	"	"	Story City.	"
3811	"	February 4, 1890	"	"	Lime Springs.	"
3831	"	March 4, 1890	"	"	Adel.	"
3842	"	March 18, 1890	"	"	Vallonia.	"
3849	"	November 4, 1890	"	"	Baxter.	"
3855	"	November 11, 1890	"	"	Newton.	"
3890	"	February 11, 1891	"	"	Wellsburg.	Denver, Colo.
3901	"	February 18, 1891	"	"	.....	"
3997	"	February 21, 1891	"	"	.....	"
4012	"	March 7, 1891	"	"	.....	"
4183	"	February 17, 1892	"	"	.....	"
4207	"	April 1, 1892	"	"	.....	"
4324	"	May 2, 1892	"	"	.....	"
4365	"	July 6, 1892	"	"	.....	"
4373	"	July 7, 1892	"	"	.....	"
4276	"	July 20, 1892	"	"	.....	"
4357	"	January 2, 1893	"	"	.....	"
4387	"	February 22, 1893	"	"	Fremont.	"
4404	"	March 18, 1893	"	"	Polk City.	"
4483	"	July 5, 1893	"	"	New Mexico.	In Colorado.

ABSTRACT—CONTINUED.

Number of certificate.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
5918	Dodding, Nick	February 6, 1900	By examination	Audubon	Extra Iowa Falls.	In Illinois.
5947	De Ford, D. H.	March 6, 1900	"	Cantril	Carthage.	
5959	Dowd, Lira E.	March 6, 1900	"	Guthrie Center	Des Moines.	
5955		June 5, 1900	"	Calmar	Marshalltown.	
5953		June 5, 1900	"	Orange City.	Illinois.	
5957		June 5, 1900	"	Hartley	Missouri.	
5961		July 3, 1900	"	Oakville		
5972		July 3, 1900	As assistant	Dubuque		
5976		July 3, 1900	Graduate	Spirit Lake.	Mason City.	
6184		December 4, 1900	By examination	Victor	Muscataine.	
6225		February 5, 1901	"	Nevada.		
6260		April 2, 1901	"	Cresco	St. Armand.	
6271		May 7, 1901	Graduate	Missouri Valley.		
6319		June 4, 1901	"	Des Moines.		In Illinois.
6333		July 4, 1901	By examination	Bensen.	South Dakota	In Wisconsin.
6353		July 2, 1901	"	Red Oak		
6354		July 2, 1901	"	Fonda.		
6359		August 6, 1901	Graduate	Ackley.	Webster City.	
6366		August 6, 1901	"	Des Moines.		
6434		August 1, 1901	"	Garden Grove.	Blackton.	
6435		October 1, 1901	"	Boone.		
6480		November 1, 1901	By examination	Danbury	Lehrville.	In Illinois.
6486	V	December 3, 1901	Graduate	Laverne	Des Moines.	
6506		December 3, 1901	By examination	West Point.		
6508		December 3, 1901	"	Panora.	Yale.	
6536		February 1, 1902	"	Clinton.	Des Moines.	
6592		March 4, 1902	"	Lemars.	North Dakota.	
6600		April 1, 1902	Graduate	Des Moines.	Indianola.	
6602		April 1, 1902	"	Danbury		
6678		May 6, 1902	By examination	Madrid.	Wisconsin.	
6679		May 6, 1902	"	Des Moines.	Des Moines.	
6680		May 6, 1902	"	Rundells	Conway.	
6716		June 20, 1902	Graduate	West Point.		
6724		June 20, 1902	"	Des Moines.		
6752		August 5, 1902	"	Sarg. Bufile	Hornick.	
6755		August 5, 1902	"	Mystic	Oelwede.	

ABSTRACT—Continued.

Number of certificate.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
3084	Engbartson, B.	March 2, 1896	By examination	Decorah.		In Missouri.
3012	Earle, W. C.	June 1, 1896	"	Wankon.		
3288	Eleon, Hugh	May 17, 1897	"	Des Moines.	Northwood.	
3283	Emery, George M.	May 26, 1897	"	Mason City.	Red Oak.	
3345	Ericsson, G. E.	November 14, 1897	"	Essex.	Council Bluffs.	
3129		April 2, 1898	"	Missouri Valley.	Le Mar.	
3553		November 20, 1898	"	Carroll.	Lamont.	
3663		May 21, 1899	"	Strawberry Point.	Early.	
3690		July 16, 1898	"	Avoca.	Des Moines.	
3748		October 1, 1899	"	Ogden.	Nebraska.	
3753		October 16, 1899	"	Malvern.	South English.	
3812		January 29, 1890	"	Iowa City.		Vinton.
3918		August 5, 1890	"	Gladbrook.		
3923		September 1, 1890	"	Defiance.		
4087		March 26, 1891	"	Onawa.		
4070		June 2, 1891	"	Marshalltown.		
4114		September 1, 1891	"	Tingley.		
4153		December 21, 1891	"	Marshalltown.	Waterloo.	
4190		March 1, 1892	"	Webster.	Hedrick.	
4195		March 1, 1892	"	Pilot Mound.	Des Moines.	
4251		April 14, 1892	Graduate.	Essex.		
4492		July 12, 1893	By examination.	Kossauqua.	Oakalosa.	
4587		November 2, 1893	"	Boone.		
4690		April 10, 1894	"	Clinton.		
4844		April 20, 1894	"	Cedar Rapids.		
4894		June 26, 1894	"	Cambridge.	Des Moines.	
4702		September 10, 1894	"	Eagle Grove.	Holmes.	
4811		February 5, 1895	"	Des Moines.	Dolliver.	
4857		May 14, 1895	"	Chester.		
4904		December 17, 1895	"	Newell.	Glidden.	
5019		March 3, 1896	"	Mason.	West Bend.	
5111		July 7, 1896	"	Tama.	Marshalltown.	
5276		May 27, 1897	Graduate.	Defiance.	Fenton.	
5307		August 8, 1897	By examination.	Akron.	Hawarden.	In South D.
5308		August 8, 1897	"	Keokuk.		
5331		October 5, 1897	"	Rhodes.		
5440		April 5, 1898	"	Clearfield.	Mingo.	

5441	Edwards, Fred C.	April	5, 1893	By examination	Monkton.	Wisconsin.	In Wisconsin.
5778	Stuman, Charles C.	August	1, 1899	Graduate	Wienwood	Wisconsin.	
5793	Embree, George B.	August	1, 1899	By examination	West Liberty.		
6380	Highway, Alva	November	9, 1899	Graduate	Des Moines.		
6149	Vilbar.	October	2, 1900	"	Des Moines.	Davenport.	
6184		November	8, 1900	"	Buffalo	Odebolt.	
6190		March	4, 1900	By examination	Atlantic.		
6249		July	5, 1901	"	Barneide		
6349		August	2, 1901	Graduate	Des Moines.		
6417		September	2, 1901	"	Davenport.		
6416		September	2, 1901	"	Davenport.		
6514		January	6, 1902	"	Independence.		
6533		January	7, 1902	By examination	Des Moines.		
6546		February	7, 1902	"	Harvey.		
6755		August	5, 1903	Graduate	Le Mars	Sioux City.	
6758		August	5, 1902	"	Little Sioux.		
6823		October	7, 1902	"	Iowa City		
6833		October	7, 1902	By examination	Des Moines.	Armstrong.	
6837		October	7, 1902	"	Wall Lake.	Griswold.	
6905	Elbert, Alfred H.	December	2, 1902	"	Centerville.		
6971	Elgin, J. F.	March	3, 1903	Graduate	Onkalocosa.		
6990	Eckenbom, D. N.	April	1, 1903	By examination	Roland.		
7102	Eide, J. H.	July	1, 1903	Graduate	Des Moines.		
7110	Eabanks, E. H.	August	4, 1903	"	Dunlap.		
7145	Edwards, Lee.	August	4, 1903	By examination	Mason City.		
7201	Erickson, J. A.	October	6, 1904	Graduate	Sioux City.		
7221	English, J. L.	October	2, 1904	"	Defiance.		
7257	Eitenmiller, L. E.	February	2, 1904	"	Adair.		
7253	Eby, Robert.	February	2, 1904	"	Des Moines.		
7253	Eberhart, L. E.	February	2, 1904	By examination	Ellsworth.		
7308	Egebretean, H. J.	February	2, 1904	Graduate	Burlington.		
7423	Erwin, B. O.	February	1, 1904	By examination	Sioux City.		
7431	Ely, R. L.	July	2, 1904	Graduate	Des Moines.		
7514	Elder, M. O.	August	4, 1904	"	Storm Lake.		
7538	Eaton, J. B.	October	3, 1904	"	Des Moines.		
7538	Ellsworth, W. F.	December	6, 1904	"	Moravia.		
7534	Eastlack, W. C.	February	7, 1905	"	Des Moines.		
7627	Elliot, Robert.	June	6, 1905	"	Albia.		
7656	Ennis, L. E.	June	19, 1905	"	Humeston.		
7655		July	12, 1905	As assistant.	Keokuk.		
142		June	12, 1890	As owner.	Redfield.		
233		June	24, 1890	"	Minneapolis.		
233		June	20, 1890	As assistant.	Dubuque.		
430		June	8, 1890	As owner	Elgin.		
555		June	8, 1890	"	Jefferson.		
671		June	21, 1890	"	Akron.		
1045		June	21, 1890	As assistant.	Shelby.		
1216		June	4, 1890	"	Jefferson.		
1408		July	30, 1890	As assistant.	Jefferson.		

ABSTRACT—CONTINUED

Number of copy.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
1681	July 27, 1880	By examination.....	Glenwood	Williamburg.	
1751	August 6, 1880	As owner	Waubek	Mt. Vernon.	
1786	August 10, 1881	By examination.....	Cedar Rapids.		
1818	October 25, 1880	As owner	Steamboat Rock.		
1855	September 15, 1880	By examination.....	Liscomb	Boone.	
1896	October 22, 1880	"	Avoca	Harlan.	
1925	November 20, 1880	"	Oxford	Wapello.	
1932	November 18, 1880	"	Colfax		
2014	February 14, 1881	"	Iowa Falls	Williams.	
2065	March 1, 1881	"	Livermore	Clarion	
2212	September 28, 1881	"	Coon Rapids.	Cedar Rapids.	
2318	January 18, 1883	"	Arcadia.		
2762	June 17, 1884	"	Marshalltown.		
2804	February 2, 1885	"	What Cheer.		
2941	November 17, 1885	"	Parkersburg.		
3067	June 25, 1886	"	Atlantic	Mystic	
3048	August 6, 1886	Graduate	Sigourney.	George.	
3054	August 20, 1888	By examination	Galva	Sac City.	
3152	July 25, 1887	"	West Union.		
3158	February 25, 1887	"	Creston.		
3166	March 15, 1887	"	Panora.		
3210	April 5, 1887	"	Jefferson.	Prarie City.	
3229	April 17, 1887	"	Lansing	Cedar Rapids.	
3251	April 20, 1887	"	Hampton.		
3293	May 21, 1887	"	Clarksville.	California.	
3355	June 13, 1888	"	Glidden	Scranton.	
3505	September 4, 1888	"	Lenox	Clearfield.	
3630	December 15, 1889	"	Maringo	North English.	
3633	January 2, 1889	"	Bentonsport.	Farmington.	
3655	April 9, 1889	"	Thurman	Louisville, Neb.	
3770	November 19, 1889	"	Columbus City	Mediapolis.	
3831	February 18, 1890	"	Camberland.	Massena.	
3990	April 12, 1890	"	Viele.	Illinoia.	
4050	September 19, 1890	By examination.....	Clarksville.	West Superior, Wis.	
4085	April 20, 1891	"	Nevada	Paulina.	
4045	May 5, 1891	"	What Cheer	Redfield.	
4088	May 2, 1891	"	Wilton Junction.		

4107	August	12, 1891	Graduate ..	Decorah	Thompson.
4372	July	12, 1891	By examination.	Collins	Baxter.
4398	August	2, 1892	"	McGregor	Monona.
4526	August	1, 1892	"	Kilverdale.	
4582	December	27, 1892	"	Newton	Jolley.
4462	May	25, 1893	"	Myatic	
4462	May	29, 1893	"	Marcus	
4502	August	9, 1893	"	Dubuque	Tiptonha.
4509	September	5, 1893	"	Clinton	"
4545	November	14, 1893	"	Ft. Dodge	Jolice.
4590	February	6, 1894	"	Onawa	
4715	September	4, 1894	"	Gilmore City	Pocahontas.
4727	September	4, 1894	"	Newton.	
4936	January	29, 1895	"	Des Moines	Milo.
5064	February	7, 1896	"	Des Moines	Atlantic.
5064	April	7, 1896	"	Toledo	Cedar Rapids.
5063	April	14, 1896	"	Hamburg	Nebraska.
5003	April	21, 1896	"	Sanborn	Rowan.
5000	June	2, 1896	"	Reinbeck	Wilton Junction.
5143	September	1, 1896	"	Anita	Osage.
5182	January	5, 1897	"	Belmond.	Dows.
5183	January	5, 1897	"	Des Moines	Idaho.
5203	February	2, 1897	"	Mahson.	
5216	March	5, 1897	"	Oakland	Atlantic.
5216	March	3, 1897	"	Newell	
5223	March	9, 1897	As assistant	Sumner.	
5359	October	5, 1897	By examination.	Dubuque	Charles City.
5345	November	9, 1897	"	Tipton	Tama.
5382	December	7, 1897	"	Creston	Villisca.
5398	May	7, 1897	"	Elma	Sumner.
5397	February	1, 1898	"	Ft. Dodge	Vincen.
5400	February	1, 1898	"	Burlington	Perry.
5572	February	1, 1898	"	Boranton	
5583	February	1, 1898	"	Humeaton.	
5583	September	6, 1898	"	Muncatine.	
5583	March	7, 1899	"	Valeria	Baxter.
5583	February	7, 1899	Graduate.	Clarksville.	
5583	March	7, 1899	"	Guttenburg	Dubuque.
5745	May	17, 1899	"	Maxwell	
5745	July	6, 1899	"	Des Moines.	
5745	July	6, 1899	"	What Cheer.	
5745	July	18, 1899	By examination	Oange	Fosterio.
5750	July	13, 1899	"	Waterloo	
5760	August	1, 1899	Graduate	Rodney.	
5530	October	2, 1899	By examination	Centerville	Humeaton.
5546	November	9, 1899	Graduate.	Des Moines	Duncombe.
5596	December	4, 1899	"	Dexter	Adel.
5590	December	5, 1899	By examination	Des Moines	Atlantic.
5915	February	6, 1900	Graduate.	Myatic	
5907	March	6, 1900	By examination		

In Wisconsin.

In California.

ABSTRACT—CONTINUED.

Number of certificate.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
6016	Fulton, P. Mack M.	May 1, 1900	Graduate.	Akron	.....	In South Dakota
6026	Franka, Clarence P.	June 5, 1900	"	Farmington.	.....
6037	Farnsworth, Ambrose H.	August 7, 1900	"	Des Moines.	Page, Neb.	
6136	"	September 4, 1900	By examination	Des Moines.	Jepp.	
6139	"	October 2, 1900	Graduate.	Kellerton	Humeaton.	
6168	"	November 8, 1900	"	Des Moines.	.....
6308	"	August 6, 1901	"	Winthrop.	.....
6378	"	August 6, 1901	"	Des Moines.	Des Moines.	In Nebraska.
6427	"	October 1, 1901	"	Clinton	.....
6478	"	November 7, 1901	By examination	Logan.	.....
6483	"	December 8, 1901	Graduate.	Minneapolis.	Connell Bluffs.	
6513	"	January 6, 1902	"	Dallas Center.	Washington.	
6500	"	April 1, 1902	"	Mapleton.	.....
6616	"	April 1, 1902	"	Ottumwa.	.....
6633	"	April 1, 1902	By examination	Grinnell.	.....
6643	"	April 1, 1902	"	Des Moines.	.....
6656	"	June 8, 1902	"	Des Moines.	.....	In Nebraska.
6710	"	June 8, 1902	"	Fairfax.	.....	In Illinois.
6716	"	June 20, 1902	Graduate.	Kerkuk.	.....
6834	"	October 7, 1902	"	Des Moines.	.....	In Illinois.
6845	"	October 7, 1902	"	Des Moines.	Waterloo.	
6853	"	October 7, 1902	By examination	Delta	Cedar Rapids.	
7006	"	October 22, 1903	Graduate.	Dubuque.	Dolliver.	
7011	"	May 5, 1903	"	Ottumwa	.....
7023	"	July 1, 1903	By examination	Hawarden	.....	In Illinois.
7039	"	July 2, 1904	Graduate	Des Moines.	.....	In California.
7111	"	July 4, 1903	"	Des Moines.	.....	In Illinois.
7143	"	August 4, 1903	"	Waterloo	.....	In Pennsylvania.
7202	"	August 4, 1903	"	Royal	Greenville.	
7203	"	August 4, 1903	"	Mason City.	.....
7208	"	October 6, 1903	By examination	Andubon.	Cedar Rapids	
7250	"	December 1, 1903	"	Delta	.....	In Illinois.
7253	"	February 2, 1904	Graduate	Des Moines.	.....
7258	"	February 2, 1904	"	Rome	.....
7270	"	February 2, 1904	"	Des Moines	.....	In Nebraska
7301	"	February 2, 1904	By examination	Antho.	.....
7306	"	June 7, 1904	"	Clinton	Lanesboro.	

7, 1904	June	Graduate	Des Moines	Webster City.	In South Dakota.
1, 1904	July	By examination	Jamaica	Iowa City.	
1, 1904	July	Graduate	Waukon	Wheatland.	
2, 1904	August	By examination	Des Moines	Kewwick.	In Indiana.
4, 1904	October	Graduate	Des Moines	Barter.	
4, 1904	October	By examination	Des Moines	Fonda.	
4, 1904	October	By examination	Williamburg		
4, 1905	April	Graduate	Albert City		In South Dakota.
4, 1905	April	By examination	Fort Dodge		
12, 1905	July	Graduate	Des Moines		
12, 1905	July	By examination	Davenport		
12, 1905	July	Graduate	Pomeroy		
1, 1905	August	By examination	St. Paul		In South Dakota.
1, 1905	August	Graduate	Des Moines		In South Dakota.
1, 1905	August	By examination	Des Moines		In South Dakota.
14, 1890	June	As owner	What Cheer.		
6, 1890	June	"	Bloomfield.		
8, 1890	June	"	Grinnell.		
15, 1890	June	"	Okeola.		
5, 1890	June	"	Muscatine.		
10, 1890	June	"	Mapleton.		
2, 1890	June	As assistant	Sabula.		
12, 1890	June	As owner	Wheatland.		
27, 1890	July	"	Waukon		
31, 1890	July	As assistant	St. Paul.		
6, 1890	June	As owner	Mechanicsville.		
18, 1880	September	By examination	Bedford.		In Illinois.
20, 1881	September	"	St. Paul.		
26, 1881	August	"	Greenfield.		
28, 1882	February	"	Denison		
22, 1892	May	"	Denison		
24, 1892	May	"	Oakalosa.		
21, 1893	August	"	Avoca.		
18, 1883	September	"	Milton		
4, 1884	March	"	Williams.		
19, 1896	July	"	Haxter.		
24, 1894	November	"	Pilot Mound.		
4, 1887	January	"	Harlan		
28, 1887	February	"	Carson		
10, 1897	May	"	Independence.		
20, 1887	April	"	Osgo.		
8, 1887	September	Graduate	Marens.		
6, 1887	September	By examination	New Hampton.		
20, 1888	March	"	Adair.		
15, 1888	May	"	Orange City.		
5, 1888	June	By examination	Stuart.		
19, 1888	June	"	Waukon		
21, 1888	August	"	Cedar Falls		
19, 1889	March	"	Webster City		
21, 1889	May	"	Washington.		
21, 1889	May	"	Washington.		

ABSTRACT—CONTINUED.

Number of certificate.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
3895	Graham, Ed L.	July 24, 1893	Graduate	Muscatine.	Pacific Junction.	
3711	Goodwin, F. L. E.	August 30, 1893	By examination	Malvern	(Freeley.	
3700	Graham, Robert D.	October 29, 1893	"	Strawberry Point	West Branch.	
3822	Gill, Bert A.	February 8, 1890	"	Springdale	Riverside.	
3838	Grant, Charles N.	February 8, 1890	"	Iowa City	Ewing, Nebraska.	
3900	Green, Samuel W.	June 19, 1890	"	Janesville	Ottumwa.	
3911	Graham, H. A.	July 18, 1890	"	Eldon	Des Moines.	
3854	Gratt, J. E.	October 31, 1890	"	Carson	Nobleville, Indiana.	
4001	Glen, A. A.	March 8, 1891	Graduate	Lobreville.	Perry.	
4081	Cardinal Florence H.	March 17, 1891	By examination	Des Moines	Waukon.	
4072		June 2, 1891	"	Truer		
4115		September 1, 1891	"	Bode		
4123		October 6, 1891	"	Bloomfield	Des Moines.	
4100		January 5, 1892	"	Hull	Clinton.	
4178		February 2, 1891	"	Shenandoah	Coin.	
4189		April 26, 1892	"	Des Moines.		
4306		March 22, 1892	"	Iowa City	Tipton.	
4374		July 18, 1892	"	Adair	Oelwein.	
4385		August 4, 1892	Graduate	Beacon	Lucas.	
4303		September 6, 1892	By examination	Pleasantville	Busey.	
4316		October 4, 1892	"	Whittemore	St. Paul.	
4376		February 7, 1893	"	Amet.		
4391		March 4, 1893	"	Mechanicville.		
4401		March 15, 1893	Graduate	Osage.		
4443		May 2, 1893	By examination	Bloux City	Cedar Rapids.	
4449		May 5, 1893	"	Sheldon	Le Mars.	
4477		June 30, 1893	"	Fort Dodge		
4479		July 30, 1893	"	Dubuque		
4486		July 5, 1893	"	Tripp	Owassa.	
4516		March 8, 1893	"	Mapleton.		
4530		March 24, 1893	"	Wlots	Cumberland.	
4591		April 3, 1894	"	Troy		
4649		May 1, 1894	"	Cherokee	Ohio.	
4676		June 6, 1894	"	Fairbank.	Evansston, Ill.	
4704		August 6, 1894	"	Hawarden	Nevada.	
4709		August 6, 1894	"	Geneva	Iowa Falls.	
4745	Grippe, L. U.	October 2, 1894	"	Lotts.		

In Michigan.

4761	May	2, 1895	By examination.	Bloomfield.	Stout City.
4777	November	18, 1894	"	Marshalltown	
4799	January	15, 1895	"	Madrid.	West Union.
4838	March	6, 1895	"	Anamoss	Anamosa.
4878	April	2, 1895	"	Manchester	Chicago.
4920	May	7, 1895	"	Luverne	
4981	August	9, 1895	"	Early.	Kirkman.
4981	September	17, 1895	"	Harlan	
4943	October	6, 1895	"	Gladbrook.	
4990	January	7, 1896	"	Cascade.	
4992	January	7, 1896	"	Larchwood.	Colfax, Wash.
4996	February	4, 1896	"	Hawarden.	Clarinda.
5000	April	3, 1896	"	Bedford	Manchester.
5051	April	7, 1896	"	Fredericksburg.	Missouri.
5055	April	17, 1896	"	Waterloo	Malvin.
5053	April	7, 1896	"	Ocheyedan.	
5088	May	5, 1896	"	Washington.	
5183	September	1, 1896	"	Woodbine.	
5196	February	2, 1897	"	Manning.	Soranton.
5198	February	2, 1897	"	Kensett.	
5279	June	1, 1897	"	Blairsburg.	South Dakota.
5284	June	7, 1897	Graduate	Murray.	Des Moines.
5299	August	2, 1897	"	Cherokee.	Carroll.
5300	August	2, 1897	"	Story City.	Laurel.
5309	August	3, 1897	By examination	Grinnell.	Gilman.
5373	December	7, 1897	"	Knorrville.	Ames.
5377	January	4, 1897	"	Centerville	
5407	March	1, 1898	"	Fairbank.	Oelwein.
5408	March	1, 1898	"	Webster City.	Carlisle.
5428	March	1, 1898	"	Gunnar	Westgate.
5429	March	1, 1898	"	Mason City	Charles City.
5443	April	6, 1898	"	Iowa Falls.	Goldfield.
5473	April	5, 1898	"	Moulton	Milton.
5485	March	31, 1898	Graduate	Hopkinton.	
5492	May	3, 1898	By examination	Ledyard.	
5496	May	3, 1898	"	Des Moines.	
5503	August	3, 1898	Graduate	Vinton	Wyoming.
5503	August	3, 1898	"	Burlington	Minnesota.
5571	September	6, 1898	"	Story City.	
5604	December	3, 1898	By examination	Alta Vista	Seattle.
5615	December	6, 1898	"	Vinton	
5638	January	3, 1899	"	Colo	St. Anthony.
5638	January	3, 1899	"	Stiles.	
5678	August	1, 1899	Graduate	Des Moines.	
5690	August	1, 1899	By examination	Buffalo Center.	
5696	August	1, 1899	"	Lake Park.	Early
5697	November	9, 1899	Graduate	Ord.	
5697	November	9, 1899	By examination	Manning.	
5914	January	2, 1900	"	Havelock.	Terril.
5914	February	6, 1900	"	Moulton.	

Ganoe, Francis W.
 Grau, G. H.
 Gill, W. H.
 Gale, Winfred I.

ABSTRACT—CONTINUED.

Number of certificate.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
5947	March 1900	"	Shenandoah.	Eagle Grove.	In Illinois.
5950	March 1900	"	Audubon.	Pocahontas.	
5971	April 1900	"	Oto	.....
6002	Wold.	May 1900	Graduate	Central City.	.....
6079	B.	July 1900	"	Des Moines.	Parkersburg.	
6104	August 1900	"	Hartley.	Lanesboro.	
6117	September 1900	"	Grand Junction.	Sergeants Bluff.	
6152	October 1900	By examination	George	Titonka.	
6155	October 1900	"	Mason City	.....
6184	December 1900	Graduate	Des Moines.	.....
6226	February 1901	By examination	Fort Dodge.	Parkersburg.	In Indiana.
6240	March 1901	"	Edgewood.	Charles City.	
6241	man.	March 1901	"	New Hampton.	Anita.	
6244	March 1901	"	Mare.	Albert City.	
6245	March 1901	"	Radcliffe.	Dubuque.	
6261	April 1901	Graduate	Des Moines.	Minnesota.	
6276	May 1901	"	.....	Nebraska.	
6277	May 1901	"	.....	.....
6290	May 1901	By examination	.....	.....
6299	May 1901	"	.....	.....
6303	H.	May 1901	Graduate	Arlington, S. D.	In Indiana.
6320	June 1901	"	.....	Centerville.	
6330	August 1901	"	.....	Newhall.	
6413	October 1901	"	.....	Grand River.	
6515	January 1902	"	.....	Washington.	
6540	February 1902	"	.....	.....
6560	E.	March 1902	"	.....	South Dakota.
6569	April 1902	By examination	.....	Lone Rock.	
6581	May 1902	"	.....	Ames.	
6582	May 1902	Graduate	.....	.....
6595	June 1902	"	Indiana, Nebraska, South Dakota, In Texas, Wisconsin.
6700	June 1902	By examination	.....	.....
6705	July 1902	"	.....	.....
6707	July 1902	Graduate	.....	.....
6708	August 1902	"	.....	.....
6709	Gerard, H. H.	August 1902	By examination	Dubuque	Rolla.	
6709	Grimm, Frank H.	August 1902	"	.....	.....
6709	August 1902	"	.....	.....
6709	August 1902	"	.....	.....
6709	August 1902	"	.....	.....

ABSTRACT—CONTINUED.

Number of cer.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
651	Rovey, E. W.	June 24, 1880	As assistant.	Independence.	Sioux City.	
774	Hope, George T.	June 4, 1880	As owner.	Little Sioux.		
795	Haman, George O.	June 29, 1880	"	Cedar Rapids		
911	Horne, John.	June 2, 1880	"	Mount Ayr.		
1071	Howenstein, W. M.	June 5, 1880	"	Parkersburg.		
1130	Huegle, H. W.	June 10, 1880	As assistant.	Des Moines.		
1185	Hanson, F.	June 7, 1880	As owner.	Sioux City.		
1196		June 14, 1880	"	Springville.		
1280		June 9, 1880	"	Vinton.		
1319		June 28, 1880	"	Winfield.		
1478		July 20, 1880	As assistant.	Adel.		
1518		July 26, 1880	"	Des Moines.		
1589		July 26, 1880	"	Burlington		
1686		August 4, 1880	"	Oelwein.		
1687		August 8, 1880	By examination.	Des Moines.	Grand Junction, Col.	
1689		August 10, 1880	"	Des Moines.		
1686		August 31, 1880	"	Ottumwa.		
1732		September 9, 1880	As owner.	Bartlett.	Hawarden.	
1724		September 14, 1880	"	Kokuk.		
1781		September 17, 1880	"	Stuart.		
1808		August 24, 1880	By examination.	Cambridge.	Riverton.	
1820		October 26, 1880	As owner.	Harvard.		
2008		December 21, 1880	By examination.	West Side.		
2032		February 26, 1881	"	Casey.	Alta.	
2060		February 28, 1881	"	Braintree.	Guthrie Center.	
2201		July 15, 1881	"	Cherokee.	Mitchellville.	
2203		August 24, 1881	"	Gilman.	Sioux City.	
2242		November 11, 1881	Graduate.	Des Moines.	Rock Rapids.	
2243		February 26, 1882	By examination.	Stanton.		
2417		April 21, 1882	"	Clinton.		
2461		May 26, 1882	"	Clarinda.		
2486		July 8, 1882	"	Strawberry Point.		
2540		July 17, 1882	"	Rose Hill.	Barton.	
2549		October 1, 1882	"	Colo.		
2660		December 1, 1882	"	Dyersville.	Waterloo.	
2665		February 10, 1883	"	West Branch.	Clarinda.	
2665		March 6, 1883	"	Maynard.		
2643	Hansen, George W.	June 6, 1883	"			

ABSTRACT—CONTINUED.

Number of certificate.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
3753	Hunt, Homer	October 16, 1890	By examination	Clinton	Camanche.	In Chicago.
3774	Hufford, W. S.	December 8, 1890	"	Siama	Des Moines.	
3785	Haslach, John A.	December 16, 1890	"	"	Bloomfield.	
3806	Hendrix, N. T.	January 26, 1891	"	"	Columbus Junction.	
3837	"	January 28, 1891	"	"	Emmetsburg.	
3845	"	March 11, 1891	"	"	"	
3851	"	March 18, 1891	"	"	Chicago, Ill.	
3852	"	March 18, 1891	"	"	Logan.	
3853	"	March 18, 1891	"	"	"	
3871	"	April 8, 1891	"	"	"	
3876	"	April 15, 1891	"	"	Emmetsburg.	In Chicago.
3879	"	April 17, 1891	"	"	Sioux City.	
3886	"	April 20, 1891	"	"	"	
3890	"	April 10, 1891	"	"	California.	
3948	"	October 7, 1891	"	"	Council Bluffs.	
3975	"	October 7, 1891	"	"	Centerville.	
3977	"	January 22, 1891	"	St. Dodge.	Doon.	
4003	"	March 7, 1891	"	Waterloo.	Kelona.	
4018	"	March 7, 1891	"	Marwell	"	
4016	"	March 7, 1891	"	Des Moines.	Clarinda.	
4026	"	March 18, 1891	"	New Market.	"	In Washington.
4034	"	April 7, 1891	Graduate	Leon.	"	
4054	"	April 16, 1891	"	Washington.	"	
4060	"	May 2, 1891	"	Weesley.	"	
4066	"	May 20, 1891	"	Dubuque.	"	
4080	"	June 2, 1891	"	Burlington.	"	
4085	"	June 16, 1891	"	Grandy Center.	Dike.	
4111	"	June 30, 1891	"	Lamont.	"	
4120	"	August 30, 1891	By examination	Onawa.	Sioux City.	
4124	"	October 23, 1891	"	Bellevue.	La Motte.	
4142	"	November 6, 1891	"	Dexter	Newton.	
4143	"	November 17, 1891	"	Nora Springs.	Des Moines.	
4150	"	November 17, 1891	"	Belmond.	Klemme	
4157	"	December 1, 1891	"	Fairfield.	Lockridge.	
4167	"	December 10, 1891	"	Mitchellville.	"	
4167	"	January 20, 1892	"	Jewell Junction.	"	

	Harlan, Ores O.		March		1892	By examination		Storm Lake				
4195	Harlan, Ores O.	E	March	1892	2	By examination	Storm Lake	Storm Lake				
4204			March	1892	24	"	Ulinton	Ulinton				
4211			April	1892	5	"	Des Moines	Des Moines				
4223			March	1892	6	"	Oskaloosa	Oskaloosa				
4226			May	1892	8	"	Williamsburg	Williamsburg				
4234			May	1892	10	"	Laurens	Laurens				
4256			July	1892	1	Graduate	Muscatine	Muscatine				
4259			July	1892	1	By examination	Manilla	Manilla				
4266			July	1892	5	"	Muscatine	Muscatine				
4273			July	1892	13	"	Clare	Clare				
4284			August	1892	4	Graduate	Greely	Greely				
4286			August	1892	2	By examination	Atlantic	Atlantic				
4287			August	1892	2	"	Rockwell	Rockwell				
4294			August	1892	25	"	Anita	Anita				
4303			September	1892	6	"	Mt. Pleasant	Mt. Pleasant				
4317			October	1892	4	"	Hannston	Hannston				
4327			November	1892	1	"	Nora Springs	Nora Springs				
4335			January	1893	5	"						
4359			January	1893	10	"						
4393			March	1893	7	"						
4412			March	1893	7	"						
4419			March	1893	18	"						
4424			March	1893	28	"						
4430			April	1893	4	Graduate	Des Moines	Des Moines				
4439			June	1893	6	By examination	Des Moines	Des Moines				
4460			June	1893	26	"	Montezuma	Montezuma				
4484			July	1893	5	"	Clarion	Clarion				
4502	Hedley, John E.		August	1893	9	"	Dubuque	Dubuque				
4535	Hammer, C. H.		December	1893	5	"	Hawarden	Hawarden				
4573	Held, William		February	1894	6	"	Burlington	Burlington				
4578	Hieber, Louis O.		February	1894	6	"	Trer	Trer				
4584	Hart, W. E.		February	1894	6	"	Sioux City	Sioux City				
4614			March	1894	6	"	Ruthven	Ruthven				
4618			April	1894	5	"	Clarion	Clarion				
4633			April	1894	17	"	Anamosa	Anamosa				
4650			May	1894	1	"	Alton	Alton				
4654			May	1894	1	"	Chancey	Chancey				
4657			May	1894	5	"	Elliot	Elliot				
4694			June	1894	8	"	Myrtle	Myrtle				
4720			July	1894	4	"	Waterloo	Waterloo				
4728			September	1894	4	"	Hampton	Hampton				
4744			September	1894	2	"	Keota	Keota				
4752			October	1894	2	"	Cedar Falls	Cedar Falls				
4787			December	1894	8	"	Sioux City	Sioux City				
4790			December	1894	18	"	Sioux City	Sioux City				
4807	Harris, Lewis O.		May	1895	16	"	Oelwein	Oelwein				
4808	Henry, Wilbur J.		December	1895	16	"	Des Moines	Des Moines				
4831	Helgeson, P. A.		March	1896	28	"	Winterset	Winterset				
4848	Hanske, Ed A.		March	1896	5	"	Lake Mills	Lake Mills				
4849	Hinta, Louis W.		March	1896	28	"	Bellevue	Bellevue				
			March	1896	30	"	Boone	Boone				

ABSTRACT—CONTINUED.

Number of certificates.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
4864	March 28, 1894	By examination.....	Blackton	Knoxville.	
4878	May 7, 1894	"	Afton	Oceola.	
4896	June 18, 1896	"	Humboldt.....	Livermore.	
4900	G.	July 2, 1895	"	Ackley	Grundy Center.	
4902	July 16, 1896	"	Hamburg	Emerson.	
4902	September 17, 1895	"	Clinton	Laporte, Ind.	
4901	December 17, 1895	"	Muskegon.....	Bridgewater.	
4909	January 3, 1896	Graduate	Des Moines.		
4970	January 7, 1896	By examination.....	Mapleton	Elliot.	In Colorado.
4978	January 7, 1896	"	Delta .....	.....
4974	January 7, 1896	"	Watkins.....	Garrison.	
4989	February 4, 1896	"	Logan.....	Missouri Valley.	
4991	February 4, 1896	"	Elliott	Atlantic.	
4994	February 4, 1896	"	Logan.....	.....	Nebraska.
4996	February 4, 1896	"	Macedonia .....	.....	In Nebraska.
5004	February 26, 1896	"	Swan	Stonx City.	
5017	March 8, 1896	"	Struble .....	.....
5028	April 7, 1896	"	Iowa Falls.	.....
5032	April 16, 1896	Graduate	Bevington.....	Pleasanton.	
5038	May 5, 1896	By examination.....	Lyons	Lake Park.	
5049	May 5, 1896	"	Tipton .....	.....
5058	June 2, 1896	"	Early	Marathon.	
5104	July 7, 1896	"	Boone .....	.....
5124	August 1, 1896	"	Eldora	Winterset.	
5122	January 1, 1896	"	Mason City.....	ymcath.	
5120	August 4, 1896	"	Stonx City.....	.....
5129	September 1, 1896	"	Ft. Atkinson.	.....
5150	October 6, 1896	"	Radcliffe .....	.....
5151	October 6, 1896	"	Grundy Center.	.....
5152	October 6, 1896	"	Grinnell .....	.....
5168	January 29, 1896	"	Des Moines.	.....
5207	February 2, 1897	"	Greenfield.	.....
5213	March 2, 1897	"	Clinton	Nevada.	
5214	March 2, 1897	"	Strawberry Point.	.....
5257	March 9, 1897	"	Storm Lake.....	.....	Hot Springs, S.D.

ABSTRACT—CONTINUED.

Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
6006	May 1, 1900	Graduate	Davenport.	Shambaugh.	
6007	May 1, 1900	"	Villisca	Adel.	
6012	May 1, 1900	"	Atalissa	Anthony.	
6015	May 1, 1900	"	Danbury	Colorado.	
6044	May 1, 1900	By examination	Centerville		
6045	May 1, 1900	"	Grand View.		
6055	May 1, 1900	"	Des Moines.		
6052	July 8, 1900	"	Keota.		
6059	July 8, 1900	Assistant	Des Moines	Florida.	
6090	August 7, 1900	Graduate	Little Sioux	Nebraska.	
6195	October 2, 1900	By examination	Grand Mound.		
6157	October 2, 1900	"	Rockwell	South Dakota.	
6160	November 8, 1900	Graduate	Des Moines	Westphalia.	
6161	November 8, 1900	"	Des Moines	Kelly.	
6196	December 4, 1900	By examination	Ackley.		
6187	December 4, 1900	"	Washington.	Virginia.	
6198	December 4, 1900	"	Millersburg.		
6211	January 1, 1901	Graduate	Thor.	Marathon.	
6225	March 5, 1901	"	Bedford	Missouri.	
6259	May 7, 1901	"	Iowa City	Illinois.	
6273	May 7, 1901	"	Pleasant Plain.		
6281	May 7, 1901	"	Brighton	Olds.	
6286	May 7, 1901	"	Walnut	Nebraska.	
6321	June 4, 1901	By examination	Dumont.	Mason City.	
6324	June 4, 1901	Graduate	Lake City	Gross, Neb.	
6325	June 4, 1901	By examination	Imogene.		
6350	June 4, 1901	"	Mt. Vernon.		
6354	August 6, 1901	"	Andonbon.		In Nebraska.
6394	August 6, 1901	Graduate	Des Moines	Dolliver.	
6395	August 6, 1901	"	Shelby		In Wisconsin.
6404	September 2, 1901	"	Des Moines	Matlock.	
6411	September 2, 1901	"	Victor	Kennett.	
6427	October 1, 1901	"	Northwood	Des Moines.	
6439	December 8, 1901	"	Tama		In Penn.
6459	December 8, 1901	"	Dubuque		
6507	December 8, 1901	By examination	Oswego.		
			Dayton	Bozheim.	

6817	Hartman, Perry Vernon	January	1, 1903	Graduate	Boone	Fraser.
6824	Hansen, John F.	December	6, 1902	"	Des Moines	Belle Plaine.
6826	Hiett, Arthur E.	December	6, 1902	"	Centerville	Sidney.
6831		December	6, 1902	"	Belle Plaine	
6847		February	4, 1903	By examination	Harcourt	Webster City.
6848		February	4, 1903	"	Albia	
6853		March	4, 1902	"	Odebolt	Afton.
6855		April	1, 1902	Graduate	Toledo	Garwin.
6856		April	1, 1902	"	Green	
6860		April	1, 1902	"	Cedar Rapids	Iowa City.
6864		April	1, 1902	By examination	Colo.	
6865		April	1, 1902	"	Fairbank	Webster City.
6866		April	1, 1902	"	Oskaloosa	Des Moines.
6868		April	1, 1902	"	Tryon	Stuart.
6869		April	1, 1902	"	Neola	
6874		May	1, 1902	Graduate	Moulton	Atlantic.
6875		May	6, 1902	By examination	Marshalltown	Colorado.
6708		June	26, 1902	Graduate	Colo.	
6716		August	5, 1902	"	Des Moines	LeClaire.
6759		August	5, 1902	"	Ottumwa	
6760		August	5, 1902	"	Des Moines	Illinois.
6761		August	5, 1902	"	Elliott	
6762		August	5, 1902	"	Hedrick	Barlington.
6815		August	6, 1902	"	Des Moines	
6816		August	21, 1902	"	LeMars	Sioux City.
6856		August	21, 1902	"	Kanawha	Clarion.
6857		October	1, 1902	"	Des Moines	Mississippi.
6861		October	1, 1902	"	Molnyre	
6862		October	5, 1902	"	Des Moines	
6863	H	December	2, 1902	"	Cedar Rapids	
6865		December	2, 1902	"	Iowa City	
6873		December	2, 1902	By examination	Muscatine	Louisiana.
6874		February	8, 1903	Graduate	Keokuk	Lone Tree.
6875	B	February	8, 1903	By examination	Des Moines	Logan.
6876		February	8, 1903	"	Klemme	Illinois.
6891		February	7, 1903	"	Clarinda	Strawberry Point.
7013		April	7, 1903	"	Cedar Falls	Hawarden.
7014		April	23, 1903	"	Libertyville	
7020		April	23, 1903	"	Millersburg	
7021		May	1, 1903	Graduate	Montrose	
7024	Engels, Carl	June	2, 1903	"	Des Moines	South Dakota.
7033	Bonens, H. B.	June	2, 1903	By examination	Emmetsburg	
7054	Head, S. W.	July	1, 1903	Graduate	Davenport	Illinois.
7058	Hansen, J. F.	July	1, 1903	"	Iowa City	Illinois.
7070	Hydinger, H. E.	July	1, 1903	"	Fort Dodge	
7081	Holm, M. L.	July	1, 1903	"	Hamburg	
7082	Hess, O. J.	July	7, 1903	"	Des Moines	
7115	Hedl, Ed	August	4, 1903	"	Lansing	Illinois.
7116	Heck, E. G.	August	4, 1903	"	Des Moines	Missouri.
				"	McGregor	Minnesota.

In Wisconsin.

In S. Carolina.
In Chicago.

In Illinois.

ABSTRACT—CONTINUED.

Number of certificate.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
7147	August 4, 1903	Graduate	Oakaloosa.		
7148	August 4, 1903	By examination	Le Mars.		
7165	October 6, 1903	Graduate	Dubuque	Indiana.	
7190	October 6, 1903	.....	Des Moines	Illinois.	
7204	October 6, 1903	By examination	Oreston.		
7221	October 6, 1903	Graduate	Little Sioux.		
7253	December 1, 1903	By examination	Delta	Cedar Rapids.	
7254	December 1, 1903	.....	Des Moines	Nebraska.	
7256	February 2, 1904	Graduate	Davenport	Buffalo.	
7307	February 2, 1904	By examination	Calmar	Manchester.	
7308	February 2, 1904	.....	Grandy Center	Hartley.	
7309	February 2, 1904	.....	Des Moines	Mason City.	
7370	May 20, 1904	Graduate	Des Moines	Minnesota.	
7371	May 20, 1904	.....	Dubuque		
7372	May 20, 1904	.....	Maquoketa.		
7378	May 20, 1904	.....	Mason.		
7383	June 7, 1904	By examination	Galva.		
7397	June 7, 1904	.....	Emmetsburg.		
7400	June 7, 1904	.....	New Hampton.		
7420	June 7, 1904	.....	Nora Springs	Floyd.	
7426	July 1, 1904	Graduate	Iowa City.		
7432	July 1, 1904	.....	Moscow.		
7434	July 1, 1904	.....	New Virginia	Des Moines.	
7454	August 2, 1904	.....	Des Moines	Illinois.	
7455	August 2, 1904	By examination	Maquoketa	Washington.	
7491	August 2, 1904	.....	Des Moines	Texas.	
7492	August 2, 1904	.....	Blakesburg	Stockport.	
7507	August 2, 1904	.....	Union	Ottumwa.	
7522	October 4, 1904	Graduate	Burlington	Illinois.	
7525	October 4, 1904	.....	Boranton		
7535	December 6, 1904	.....	Des Moines	Illinois.	
7545	December 6, 1904	.....	Des Moines	South Dakota.	
7560	February 7, 1905	.....	Cedar Rapids	Wisconsin.	
7567	February 7, 1905	.....	Des Moines	Aurelia.	
7579	February 7, 1905	By examination	Des Moines	Ottumwa	
7580	February 7, 1905	.....	Baxter	Marshalltown.	
7584	February 7, 1905	.....	Ft. Dodge.		

	Hough, J. B.	June	1906	Graduate	Mt. Hamill	Illinois.
7680		June	4, 1906	By examination	Iowa Falls.	
7681		June	4, 1906	Graduate	Des Moines.	
7688		June	12, 1906	"	Dubuque	Illinois.
7676		July	12, 1906	"	Des Moines.	Wisconsin.
7680		July	12, 1906	"	Bagley.	
7686		July	12, 1906	By examination	Elkader.	
7700		July	12, 1906	"	Grinnell.	
7704		July	12, 1906	"	Keokuk.	
7718		August	1, 1906	Graduate	Elliot.	Henderson.
1696		August	8, 1890	By examination	Boone.	Clinton.
2308		April	17, 1883	"	Maquoketa.	..... In Colorado.
2378		May	12, 1883	"	Sergeants Bluff	Dawson.
2359	D	November	20, 1888	"	Des Moines.	
2366		February	14, 1889	"	(Brighton only).	
2393	F	February	7, 1891	"	Des Moines.	Valley Junction.
2402		February	17, 1891	"	Oresco.	
4394		November	1, 1892	"	Angus	Knierim.
4396		December	1, 1892	"	Boone.	
4359		May	12, 1896	Graduate	Des Moines	Sergeants Bluff.
5000		June	1, 1900	By examination	Mapleton.	Ft. Dodge.
5043		March	5, 1904	"	Mapleton.	
5074		March	4, 1904	"	Fort Dodge.	
7343		October	4, 1904	Graduate	Des Moines.	Minnesota.
7320		June	4, 1906	"	Keokuk	Illinois.
7681		July	12, 1906	By examination	Logan.	
2586		June	19, 1890	As owner	Carson.	
267		June	19, 1890	As assistant	Carson.	
2553		June	8, 1890	As owner	Cedar Falls.	
497		June	12, 1890	As assistant	Des Moines.	
620	G	June	3, 1890	As owner	Grinnell.	
746		June	8, 1890	"	La Porte City.	
1018	W	June	8, 1890	"	Oelwein.	Burlington.
1607		August	27, 1890	"	Danville.	
1808	Jones, J. R.	November	19, 1890	By examination	Fertile.	Atlantic.
1809	Jones, J. B.	October	18, 1890	As assistant	Denison	
2042	Joder, Josiah K.	April	15, 1881	By examination	Waterloo.	St. Charles.
2073	Jennings, Jose b, Jr	April	7, 1881	"	Wilton Junction.	Ida Grove.
2259	Johnson, Barnett	December	6, 1881	"	La Mollie.	Beaconsfield.
2672	Jones, Thomas B	March	26, 1893	"	Florida.	
2408	Jones, Uriah C	June	5, 1893	"	Breda.	
2722	John, Milo J	February	18, 1884	"	Clinton.	
2800	Jenkins, Hugh	September	2, 1884	Graduate	Preston.	
2046	Jay, George H.	September	10, 1889	By examination	Shenandoah.	
2077	Jackson, J. W	September	21, 1889	"	Des Moines.	
3292	Jertcho, John H.	August	16, 1887	"	Mt. Pleasant.	Lowden.
3348	Jurgensen, P H.	November	17, 1887	"	Clinton	
3358	Johnson, John A	December	21, 1887	"	Des Moines.	Burlington.
3367	Jordan, H. M	January	17, 1888	"	Danville	Rockwell City.
3561	Joselyn, E. S	November	1, 1888	"	Stratford.	

ABSTRACT—CONTINUED.

Number of certificate.	Name.	Place of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
3644	Judisch, George.	April 16, 1899	By examination	Muscatine	Ames.	
3655	Jones, E. B.	May 10, 1899	"	Chariton.	New York.	
3726	Johnson, Charles J.	January 7, 1899	"	Clarinda	Morgan Valley.	
3739	John, G. W.	January 15, 1899	"	Lucas	Norwalk.	
3820	Jones, Paul W.	February 14, 1899	"	Roland		
3834	Jones, Roland	March 31, 1899	"	Le Mars.		
3901	Johnson, E. L.	September 2, 1899	"	Stanhope.	Des Moines.	
3972	Joder, A. T.	September 4, 1899	"	Waterloo	Hudson.	
4023	Jones, L. H.	March 7, 1899	"	Shelby.	Oakland.	
4077	Johnson, F. W.	June 9, 1899	"	Des Moines	Luther.	
4108	Johnson, H. R.	August 24, 1899	"	Ottumwa	Boyer.	
4118	Jessen, Balzer T.	September 1, 1899	"	Irwin.		In Colorado.
4165	Jones, Samuel A.	September 23, 1899	"	Cumberland	Atlantic.	
4197	Jones, Harry F.	March 8, 1899	"	Clarinda	Des Moines.	
4199	Johnson, Anton C.	March 7, 1899	Graduate	Ottumwa	Des Moines.	
4203		May 19, 1899	"	Sioux Rapids		
4229		October 11, 1899	By Examination	Lima		In Minnesota.
4267		December 6, 1899	"	Des Moines.	Volga City.	
4264		January 24, 1899	"	Manassas	Sharpsburg.	
4275		February 7, 1899	"	Clarinda	Davia, S. D.	
4441		May 2, 1899	"	Jewell Junction	Albia.	
4447		November 23, 1899	"	Sigourney	Weeping Water, Neb.	
4500		January 26, 1899	"	Carbon	Des Moines.	
4503		March 15, 1899	Graduate	Des Moines	Logan	
4553		May 1, 1899	By examination	Des Moines	Marshalltown.	
4554		June 20, 1899	"	Akeley	Stratford.	
4751		October 2, 1899	"	Carbon	Manassas.	
4754		October 2, 1899	"	Callender	Oedar Rapids.	
4825		March 5, 1899	"	Mechanicsville		
4922		August 6, 1899	"	Keosauqua		
4983		December 3, 1899	"	Clarinda		In Utah.
5118		August 4, 1899	"	Oedar Rapids		
5122		August 4, 1899	"	Le Mars.		
5144		September 1, 1899	"	Lenox		
5161	Johannsen, Otto	November 6, 1899	Graduate	Davenport.	Gowrie.	New York.
5296	Junker, W. E.	October 5, 1899	By examination	Toledo	Des Moines.	
5354	Jackson, T. C.	April 5, 1899	"	Red Oak	Shenandoah.	

Index	Month	Year	By examination	Location	State
5405	April	1898	By examination	St. Louis Rapids	Sanborn.
5406	August	1898	Graduate	Stockton	Sanborn.
5407	January	1899	By examination	Des Moines	Sanborn.
5408	January	1899	"	Colfax	Madrid.
5409	January	1899	"	Holstein	Wabita.
5410	May	1899	Graduate	Reinbeck	Sanborn.
5411	May	1899	By examination	Mt. Pleasant	Sanborn.
5412	June	1899	Graduate	Manning	Kennewaha.
5413	June	1899	"	Guthrie Center	Sanborn.
5414	September	1899	By examination	Arcadia	Albion
5415	October	1899	"	Eatherville	Lime Springs.
5416	March	1900	"	Wesley	Rake.
5417	March	1900	"	Des Moines	Perry.
5418	April	1900	"	Rolfe	Paton.
5419	April	1900	"	Forest City	Sanborn.
5420	June	1900	Graduate	Des Moines	Missouri.
5421	June	1900	By examination	Des Moines	Missouri.
5422	August	1900	Graduate	Malvern	Missouri.
5423	September	1900	"	Eagle Grove	Cedar Rapids.
5424	September	1900	By examination	Des Moines	Cedar Rapids.
5425	September	1900	Graduate	Des Moines	Cedar Rapids.
5426	January	1901	"	Thor	Jordan.
5427	January	1901	By examination	Rensen	Jordan.
5428	March	1901	"	New Hampton	Eatherville.
5429	March	1901	"	Des Moines	Eatherville.
5430	May	1901	Graduate	Grinnell	Story City.
5431	August	1901	"	Des Moines	Story City.
5432	August	1901	"	Des Moines	Story City.
5433	August	1901	"	Fairfield	Story City.
5434	August	1901	"	Des Moines	Story City.
5435	August	1901	By examination	Fairfield	Story City.
5436	September	1901	"	Fairfield	Story City.
5437	October	1901	Graduate	Des Moines	Story City.
5438	October	1901	By examination	Cedar Rapids	Story City.
5439	November	1901	"	Eagle Grove	Story City.
5440	November	1901	"	Des Moines	Story City.
5441	January	1902	Graduate	Decorah	Story City.
5442	January	1902	By examination	Lemars	Story City.
5443	March	1902	"	Greenfield	Story City.
5444	March	1902	"	Winfield	Story City.
5445	April	1902	Graduate	Reinbeck	Story City.
5446	April	1902	"	Iowa City	Story City.
5447	April	1902	By examination	Norwood	Story City.
5448	May	1902	Graduate	Des Moines	Story City.
5449	May	1902	Graduate	Cedar Rapids	Story City.
5450	July	1902	By examination	Osgo	Story City.
5451	August	1902	By examination	Keosauqua	Story City.
5452	August	1902	Graduate	Carbon	Story City.
5453	August	1902	By examination	Des Moines	Story City.
5454	October	1902	"	Des Moines	Story City.

ABSTRACT—CONTINUED.

Number of certificate.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
6946	February	By examination	Beacondfield.....	Indian Territory.	
6976	April	"	Dubuque	Wisconsin.	
6992	H.....	April	"	Webb	.....
7005	May	Graduate	Clinton.....	.....	Illinois.
7008	June	By examination	Clear Lake.....	Adel.	
7068	July	Graduate	Bellevue	.....
7163	October	"	Ottumwa	.....	Oregon.
7167	October	"	Cherokee	Manass.	
7168	October	"	Mt. Pleasant.	.....
7241	December	"	St. Louis City	.....	Nebraska.
7310	February	By examination	Ackley	New Hampton.	
7311	February	"	Everly	.....
7374	May	Graduate	Waterloo.	.....
7414	July	"	Hopkinton.	.....
7455	July	"	Dubuque	.....	Minnesota.
7467	August	By examination	Keokuk	.....	Wisconsin.
7468	August	"	Belmond.	.....
7535	October	Graduate	Des Moines.	Baxter.	
7612	April	"	Mt. Pleasant.	.....
7614	April	"	Des Moines.	.....
7632	June	"	Weldon	.....	Indiana.
7639	June	"	Spencer.	.....	Illinois.
7650	June	"	Wauke.	.....
7679	July	"	Des Moines.	.....	Indiana.
7695	July	"	Davenport.	.....
7749	August	By examination	Muscatine.	.....
435	June	As owner	Ridridge Junction.	.....
544	June	As assistant	Otley.	.....
653	June	As owner	Keokuk.	.....
691	June	"	Keokuk.	.....
724	June	"	Lisbon.	.....
943	June	As assistant	Monticello.	.....
908	June	As owner	McGregor.	.....
1170	July	"	Pella.	.....
1171	July	As assistant	Pella.	.....
1704	August	By examination	Garriton.	Creighton.	
1799	August	"	Denison.	.....

ABSTRACT--CONTINUED.

Number of certificate.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
4818	Kehm, Conrad.	February 2, 1896	Graduate	Fort Dodge.	Tipton.	
4844	Kallen, James Loren.	March 16, 1896	By examination.	Tama.		
4861	Kloster, Ben J.	April 2, 1894	"	Sioux City.	Orient.	
4870	Kingery, J. H.	April 16, 1894	"	Creston.		
4903	Kissel, George.	July 9, 1895	"	Oresco.	Eddyville.	
4905	Kidd, Fred Z.	June 25, 1896	"	Oelwein.		
4902	Knudson, L. C.	December 17, 1895	"	Montour.	Marion.	North Dakota.
4990	Klein, H. W.	February 11, 1896	"	Rock Rapids.		
5016	Kennedy, O. S.	March 8, 1896	"	Logan.	Minnesota.	
5025	Kucheman, B. F.	March 24, 1896	"	Bellevue.	New Mexico.	
5029	Kinsinger, E. D.	April 7, 1895	"	Bloomfield.	Earlville.	
5044	Kendall, Charles	April 7, 1895	"	Fredericksburg.	Sioux City.	
5069	Knee, W. J.	April 7, 1896	"	Le Mars.		
5117	"	June 8, 1894	"	Callender.	Burlington.	
5166	"	November 10, 1896	"	Des Moines.		
5179	"	December 1, 1896	"	Ogden.		
5190	"	December 14, 1896	"	Middle Arizona.		
5237	"	April 6, 1897	"	Whitten.		
5300	"	July 6, 1897	"	Emmettsburg.		
5312	"	August 3, 1897	"	Fort Madison.		
5374	"	January 4, 1898	"	Lake City.	Auburn.	
5413	"	March 1, 1898	"	Paton.	Keosauqua.	
5427	"	March 1, 1898	"	Mason City.	Janesville.	
5481	"	March 5, 1898	"	Fort Atkinson.		
5490	"	April 5, 1898	"	Pella.	Edgewood.	
5491	"	June 7, 1899	"	Elkport.	Clarion.	
5498	"	June 7, 1898	"	Spring Brook.	Sibley.	
5534	"	July 27, 1894	"	Wall Lake.	Buckeye.	
5552	"	August 27, 1898	Graduate	Redoliff.	Kiron.	
5562	"	September 7, 1898	Graduate	Carroll.	Colorado.	
5605	"	December 6, 1896	By examination.	Blanchard.	New Sharon.	
5628	"	January 8, 1899	"	Oskaloosa.	Kiaros.	
5671	"	April 4, 1899	"	Letts.		
5711	"	June 6, 1899	Graduate	Davenport.	Adel.	
5716	"	June 6, 1899	"	Winterset.	Evans.	
5736	"	July 6, 1899	By examination.	Des Moines.	Dowa.	
5792	Klingaman, O. B.	August 1, 1899	"	Bayard.		

Index	Name	Month	Date	By examination	Location	State
5954	Kiger, A. P.	December	5, 1900	By examination	Glenwood	Wisconsin
5955	Kenzemann, Chas.	February	6, 1900	"	Des Moines	Wisconsin
5956	Knipe, J. B.	March	6, 1900	"	Des Moines	Wisconsin
5957	Koenig, Geo. W.	May	1, 1900	Graduate	New Hampton	Wisconsin
5958	Kramme, G. L.	May	1, 1900	"	Muscantine	Wisconsin
5959	Kavanaugh, M. P.	May	1, 1900	"	Charles City	Wisconsin
5960	Kennedy, S. J.	June	5, 1900	"	Keokuk	Wisconsin
5961	King, W. E.	August	7, 1900	"	Des Moines	Wisconsin
5962	Kreder, Ray E.	August	7, 1900	"	Van Wert	Wisconsin
5963	Kane, John H.	August	7, 1900	"	Bedford	Wisconsin
5964	Klonus, U. C.	August	7, 1900	"	Cedar Rapids	Wisconsin
5965	Kahoe, O. F.	October	2, 1900	"	Stout City	Wisconsin
5966	Keefe, A. J.	October	2, 1900	"	Ackley	Wisconsin
5967	Kuch, W. L.	February	5, 1901	By examination	Des Moines	Wisconsin
5968	Kopp, P. F.	April	2, 1901	Graduate	Des Moines	Wisconsin
5969	Koch, H. J.	May	5, 1901	"	Parkburg	Wisconsin
5970	Kearby, G. M.	May	7, 1901	"	Le Mars	Wisconsin
5971	Kinnett, Elmer	June	4, 1901	By examination	Story City	Wisconsin
5972	Kirschner, C. E.	August	6, 1901	Graduate	Dunlap	Wisconsin
5973	Kinney, E. C.	September	2, 1901	"	Benaroff	Wisconsin
5974	Kain, O. B.	September	2, 1901	"	Des Moines	Wisconsin
5975	Knape, A. J.	December	8, 1901	"	Des Moines	Wisconsin
5976	Knox, S. T.	December	8, 1901	"	Osgo	Wisconsin
5977	Knudson, T. H.	December	8, 1901	"	Manchester	Wisconsin
5978	Kness, Grant	December	8, 1901	"	Crushing	Wisconsin
5979	Kearby, G. M.	March	4, 1902	Graduate	Elma	Wisconsin
5980	Kinnett, Elmer	March	4, 1902	"	Marengo	Wisconsin
5981	Kirschner, C. E.	March	4, 1902	"	Story City	Wisconsin
5982	Kinney, E. C.	April	1, 1902	"	Ft. Dodge	Wisconsin
5983	Kain, O. B.	April	1, 1902	"	West Liberty	Wisconsin
5984	Knape, A. J.	April	1, 1902	"	Dubuque	Wisconsin
5985	Knox, S. T.	May	5, 1902	By examination	Sumner	Wisconsin
5986	Knudson, T. H.	May	5, 1902	"	Des Moines	Wisconsin
5987	Kness, Grant	June	8, 1902	"	Stout City	Wisconsin
5988	Kearby, G. M.	June	8, 1902	"	Des Moines	Wisconsin
5989	Kinnett, Elmer	June	20, 1902	"	Boone	Wisconsin
5990	Kirschner, C. E.	August	5, 1902	"	Moulton	Wisconsin
5991	Kinney, E. C.	August	6, 1902	"	Des Moines	Wisconsin
5992	Kain, O. B.	August	6, 1902	"	Des Moines	Wisconsin
5993	Knape, A. J.	August	6, 1902	"	Algona	Wisconsin
5994	Knox, S. T.	October	7, 1902	"	Oelasee	Wisconsin
5995	Knudson, T. H.	November	5, 1902	"	Des Moines	Wisconsin
5996	Kness, Grant	February	8, 1903	By examination	Des Moines	Wisconsin
5997	Kearby, G. M.	April	8, 1903	"	Hampton	Wisconsin
5998	Kinnett, Elmer	April	7, 1903	"	Dubuque	Wisconsin
5999	Kirschner, C. E.	April	7, 1903	"	Manning	Wisconsin
6000	Kinney, E. C.	May	6, 1903	Graduate	Allerton	Wisconsin
6001	Kain, O. B.	May	6, 1903	"	Shell Rock	Wisconsin
6002	Knape, A. J.	May	6, 1903	"	Cedar Rapids	Wisconsin
6003	Knox, S. T.	June	5, 1903	By examination	Calmar	Wisconsin
6004	Knudson, T. H.	June	5, 1903	"	Audubon	Wisconsin
6005	Kness, Grant	July	1, 1903	Graduate	Des Moines	Wisconsin
6006	Kearby, G. M.	July	1, 1903	"	Des Moines	Wisconsin
6007	Kinnett, Elmer	July	1, 1903	"	Des Moines	Wisconsin
6008	Kirschner, C. E.	July	1, 1903	"	Des Moines	Wisconsin
6009	Kinney, E. C.	July	1, 1903	"	Des Moines	Wisconsin
6010	Kain, O. B.	July	1, 1903	"	Des Moines	Wisconsin
6011	Knape, A. J.	July	1, 1903	"	Des Moines	Wisconsin
6012	Knox, S. T.	July	1, 1903	"	Des Moines	Wisconsin
6013	Knudson, T. H.	July	1, 1903	"	Des Moines	Wisconsin
6014	Kness, Grant	July	1, 1903	"	Des Moines	Wisconsin

ABSTRACT—CONTINUED.

Number of certificate.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
7084	Kneever, Harry H.	July 1, 1903	Graduate	Des Moines	Illinois.	
7085	Keir, A. B.	July 1, 1903	"	Dubuque	Baltimore.	
7117	Kingbury, L. J.	August 4, 1903	"	Clinton	Red Oak.	
7118	"	August 4, 1903	"	Mason City	Marshalltown.	
7119	"	August 4, 1903	"	Keokuk	"	
7120	"	August 4, 1903	"	Molokai	"	
7149	"	August 4, 1903	By examination	Bancroft	"	
7169	"	October 6, 1903	Graduate	Des Moines	Audubon.	
7170	"	October 6, 1903	"	Oceola	"	
7205	"	October 6, 1903	By examination	Des Moines	Illinois.	
7226	"	November 2, 1903	Graduate	Council Bluffs	"	
7242	"	December 1, 1903	"	Algona	Illinois.	
7272	"	February 2, 1904	"	Des Moines	Illinois.	
7294	"	April 5, 1904	"	Sioux City	West Liberty.	
7325	"	April 5, 1904	"	Des Moines	"	
7336	"	April 5, 1904	"	Des Moines	"	
7375	"	May 20, 1904	"	Dubuque	"	
7426	"	July 1, 1904	"	Bristol	Illinois.	
7468	"	August 2, 1904	By examination	Des Moines	South Dakota.	
7486	"	August 2, 1904	Graduate	Winthrop	Tama.	
7508	"	February 7, 1905	"	Des Moines	Wisconsin.	
7529	"	February 7, 1905	"	Des Moines	Indiana.	
7570	"	February 7, 1905	"	Story City	Renwick.	
7600	"	April 4, 1905	By examination	Algona	Kansas.	
7601	"	April 4, 1905	"	Earling	Defiance.	
7617	"	April 2, 1905	Graduate	Des Moines	Indiana.	
7622	"	April 2, 1905	"	Charles City	"	
7734	"	August 1, 1905	"	Burlington	"	
7742	"	August 1, 1905	"	Davenport	"	
7745	"	August 1, 1905	"	Farley	"	
7750	"	August 1, 1905	By examination	Coin	"	
160	"	June 16, 1880	As assistant	Perry.	"	
229	"	June 5, 1880	As owner	Dubuque	"	
586	"	June 24, 1880	"	Cascade	"	
730	"	June 5, 1880	"	Hopkinton	"	
732	"	June 25, 1880	"	Des Moines	"	
847	"	June 17, 1880	"	Murray	Oceola.	

1087	H.	June	18, 1880	As principal	Oauge.	Charlotte.
1168	J.	June	8, 1880	As owner	Marshalltown.	Charlotte.
1280		June	28, 1880	"	Winfield.	Charlotte.
1286		July	19, 1880	"	Danbury.	Charlotte.
1473		July	30, 1880	As assistant	Sioux City.	Charlotte.
1701		August	7, 1880	By examination	Davenport.	Charlotte.
1708		August	9, 1880	"	Coin.	Charlotte.
1713		August	20, 1880	As owner	Des Moines.	Charlotte.
1864		January	8, 1881	"	Oreoso.	
2010		February	7, 1881	By examination	Des Moines.	
2074		April	11, 1881	"	Muscatine.	
2120		May	26, 1881	"	Leon.	
2161		July	8, 1881	"	Colo.	Hull.
2218		September	22, 1881	"	Webster City.	Hull.
2286		September	1, 1881	"	Marshalltown.	Hull.
2316		December	18, 1881	"	Villena.	Hull.
2321	Little, M. A.	April	4, 1882	"	Casey.	Webster City.
2476	Loose, A. B.	June	9, 1882	"	Lake City.	Webster City.
2530	Laney, W. J.	September	6, 1883	"	Decorah.	Davis City.
2552		September	14, 1883	"	Maquoketa.	Davis City.
2555		December	19, 1883	"	West Branch.	Davis City.
2616		August	8, 1883	"	Lawler.	New Hampton.
2707		May	28, 1884	"	Iowa City.	New Hampton.
2776		June	30, 1884	"	Columbus Junction.	Nora Springs.
2821		December	16, 1884	"	Charles City.	Nora Springs.
2826		April	9, 1885	"	Sheldahl.	Slater.
2908		July	28, 1885	"	Des Moines.	Oakland.
2949		March	4, 1886	"	Waterloo.	Des Moines.
3000		October	16, 1886	"	Lone Tree.	Labon.
3120		January	18, 1887	"	Monroe.	Nebraska.
3123		February	1, 1887	"	Hawarden.	California.
3194		February	12, 1887	"	Murray.	Oaccola.
3208		May	2, 1887	"	Yale.	(For Yale only).
3258		June	7, 1887	"	Lawler.	
3298		August	16, 1887	"	Wellman.	
3306		September	1, 1887	"	Guthrie Center.	
3394		February	22, 1888	"	Winfield.	
3454		May	14, 1888	"	Dubuque.	
3486		July	11, 1888	"	Grinnell.	
3490	Landier, Will R.	July	17, 1888	"	Marshalltown.	Sioux City.
3501	Langhlin, M. R.	August	8, 1888	"	Boone.	Perry.
3512	Lawhead, W. E.	August	26, 1888	"	Redding.	Burlington.
3521	Lawrence, H. G.	September	11, 1888	"	Des Moines.	Burlington.
3529		March	18, 1889	"	Oreston.	Sioux City.
3536		April	9, 1889	"	Oreston.	Sioux City.
3538		May	21, 1889	"	Dayton.	Sioux Rapids.
3590		August	6, 1889	"	Grand Junction.	Minnesota.
3716		August	28, 1889	"	Ottumwa.	Minnesota.
3720		September	12, 1889	"	New Market.	Missouri.
3773		December	9, 1889	"	Marion.	Missouri.

ABSTRACT—CONTINUED.

Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
Loomis, F. W.	December 28, 1889	By examination	Shannon City.	Minnesota.	
Lloyd, James H.	January 2, 1890	"	Westbranch.		
Listerbarger, L. H.	January 24, 1890	"	Cedar Rapids.		
London, L. W.	February 23, 1890	"	Osceola.		
Larsen, T. S.	March 18, 1890	"	Ft. Dodge.	Washington.	
L. S. S.	July 28, 1890	"	Dubuque.		
L. S. S.	September 2, 1890	"	Bloux City.		
L. S. S.	November 12, 1890	"	Garrison.	Vinton.	
L. S. S.	May 5, 1891	"	Oreston.	Greenfield.	
L. S. S.	May 19, 1891	"	Wall Lake.	West Point.	
L. S. S.	August 11, 1891	"	Inwood.	Palmer.	
L. S. S.	October 10, 1891	"	Manning.		
L. S. S.	August 17, 1892	Graduate	Waterloo.	Waterloo.	
L. S. S.	August 31, 1892	By examination	Grundy Center.		
L. S. S.	October 4, 1892	"	Villisca.		
L. S. S.	December 6, 1892	"	Ames.		
L. S. S.	March 14, 1893	"	Grand Junction.	Tipton.	
L. S. S.	March 7, 1893	"	Independence.	Donnellson.	
L. S. S.	March 8, 1893	"	Manson.		
L. S. S.	April 6, 1893	"	Paton.		
L. S. S.	June 6, 1893	"	Burlington.	Marathon.	
L. S. S.	June 6, 1893	"	Cherokee.	Melbourne.	
L. S. S.	August 1, 1893	"	Newton.	Minden.	
L. S. S.	February 6, 1894	"	Reusens.	Butte Mont.	
L. S. S.	February 17, 1893	"	Dallas Center.	Sexton.	
L. S. S.	March 6, 1894	"	Lamont.	Ottumwa.	
L. S. S.	March 6, 1894	"	Stanton.	Cresco.	
L. S. S.	April 8, 1894	"	Sheldon.	Waterloo.	
L. S. S.	April 8, 1894	"	Alta.		
L. S. S.	April 8, 1894	"	Anamosa.	Shannon City.	
L. S. S.	June 6, 1894	"	Lime Springs.		
L. S. S.	September 25, 1894	"	Fonda.		
L. S. S.	October 2, 1894	"	Hampton.	Ida Grove.	
L. S. S.	October 2, 1894	"	Danbury.	Osceola.	
L. S. S.	November 12, 1894	"	Murray.		
L. S. S.	December 4, 1894	"	Dubuque.		
L. S. S.	March 8, 1894	"	Danlap.		

4600	Lowery, Fred B.	April	2, 1894	By examination	Oresco.	Whittemore.	Illinois.
4635	Lundgren, Charles W	May	7, 1885	"	Sioux City.		Ohio.
4636	Lien, Albert E.	July	2, 1896	"	Eagle Grove		Illinois.
4637		December	2, 1896	"	Dubuque.	Owasa.	
4638		January	7, 1896	"	Grundy Center.	New Providence.	
4639	H. de	February	4, 1896	"	Orange City.		
5015		March	8, 1896	"	Ledyard		
5016		April	4, 1896	"	Libson.		
5122		September	1, 1896	"	Clinton.	Katherville.	
5167		November	10, 1896	"	Pleasantville.	Eldora.	
5221		March	2, 1897	"	Gowrie	Leclair.	
5258		April	6, 1897	"	Davenport.	Monroe.	
5282		June	1, 1897	"	Perry	Ruthven.	
5283	Lane, F. L.	August	1, 1897	Graduate	Council Bluffs		
5286	Litzrodt, E. P.	July	6, 1897	By examination	De Witt		
5291	Large, J. B.	July	6, 1897	"	Sioux City.		
5292	Lerch, Fred, Jr.	August	10, 1896	"	Bellevue		
5316	Lenz, W. L.	February	1, 1898	"	Iowa Falls.		
5328	Lyman, D. J.	March	1, 1898	"	Janesville.	Emmesburg.	
5414	Liffing, E. A.	April	5, 1898	"	Monroe.		
5433	Loar, G. W.	April	5, 1898	"	Oresco.		
5481	Lomas, E. T.	April	5, 1898	"	Independence.		
5509	Leytze, F. C.	April	5, 1898	"	Des Moines.	South Dakota.	
5545	Langness, Olaf.	August	2, 1898	Graduate	Bradyville.		
5558	Large, A. F.	August	7, 1898	By examination	Cedar Rapids.		
5593	Lott, H. V.	September	6, 1898	Graduate	Churdon.		
5610	Le Gore, J. F.	December	6, 1898	By examination	Council Bluffs.	Rockwell City.	
5611		February	7, 1899	Graduate	Burlington.		
5629		April	29, 1899	"	Keokuk	Davenport.	
5675		April	29, 1899	"	Muscatine.	Spokane, Wash.	
5690		June	6, 1899	"	Washington.	Wilton Junction.	
5709		July	6, 1899	"	Decorah		
5719		July	6, 1899	"	Decorah	Minnesota.	
5728		July	6, 1899	"	Conway	Des Moines.	
5759		September	29, 1899	By examination	Davenport.		
5820		October	5, 1899	Graduate	Independence.		
5829		October	4, 1899	By examination	Sabula.		
5833		November	9, 1899	"	Roland	Cambridge.	
5851		November	9, 1899	"	Pella.		
5852	M.	December	5, 1899	"	Grand Junction.		
5875		December	5, 1899	"	Forest City	Fonda.	
5900		February	6, 1900	"	Marengo.		
5911		February	6, 1900	"	Des Moines.		
5921		February	6, 1900	"	Clarinda.		
5933		February	6, 1900	"	Avoca.		
5978		March	8, 1900	"	Iowa City	Readlyn.	
6021		April	1, 1900	"	Ely.		
6074		May	10, 1900	"	Davenport.		
6077		July	7, 1900	Graduate	Cherokee.	Steamboat Rock.	
6098		August	7, 1900	"	Des Moines.	Minnesota.	
6148		October	7, 1900	"			

ABSTRACT—CONTINUED.

Number of certificate.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
6215	February 5, 1901	Graduate.	New Vienna.	Clinton.	
6216	March 5, 1901	Graduate	Kesley.		
6217	May 7, 1901	Graduate	Danbury.		
6218	August 6, 1901	By examination	Avoca.	Lake View.	
6219	September 2, 1901	Graduate	Stout City.	Westgate.	
6220	October 1, 1901	Graduate	Eagle Grove.	.....	In Wisconsin.
6221	December 8, 1901	By examination	Dubuque.	.....
6222	January 8, 1902	Graduate	Baldwin.	.....
6223	January 6, 1902	Graduate	Des Moines.	South Dakota.	
6224	January 7, 1902	By examination	Bayard.	Maxwell.	
6225	March 4, 1902	Graduate	Des Moines.	.....	In Wisconsin.
6226	March 4, 1902	Graduate	Des Moines.	Colorado.	
6227	April 1, 1902	Graduate	Danbury.	.....
6228	April 1, 1902	Graduate	Wellman.	.....
6229	June 20, 1902	Graduate	Stout City.	California.	
6230	August 2, 1902	Graduate	Whitson.	Fort Dodge.	
6231	August 5, 1902	.....	Spencer.	.....
6232	August 5, 1902	.....	Crawfordville.	.....
6233	August 5, 1902	.....	Gladbrook.	Indianola.	
6234	August 21, 1902	.....	Manitowish.	Orange City.	
6235	October 7, 1902	.....	Des Moines.	.....	In Nebraska.
6236	October 7, 1902	.....	Bayard.	.....
6237	November 5, 1902	.....	Des Moines.	Grand Junction.	
6238	February 8, 1903	.....	Mystic.	Murray.	
6239	February 8, 1903	.....	Chariton.	.....
6240	February 8, 1903	.....	Manchester.	Masonville.	
6241	March 7, 1903	.....	Des Moines.	.....	In Illinois.
6242	April 7, 1903	.....	Guthrie Center.	.....
6243	April 7, 1903	.....	Des Moines.	.....	In Wisconsin.
6244	April 7, 1903	.....	Des Moines.	.....	In Nebraska.
6245	April 7, 1903	.....	Hampton.	Hubbard.	
6246	April 7, 1903	.....	Des Moines.	.....	In Nebraska.
6247	April 7, 1903	.....	Stout City.	.....
6248	April 7, 1903	.....	Schaller.	.....
6249	June 1, 1903	.....	Wheatland.	.....
6250	July 1, 1903	.....	Des Moines.	Stanley.	
6251	October 6, 1903	.....	Libertyville.	Alabama.	
6252	October 6, 1903	.....	.....	.....
6253	October 6, 1903	.....	.....	.....
6254	October 6, 1903	.....	.....	.....
6255	October 6, 1903	.....	.....	.....
6256	October 6, 1903	.....	.....	.....
6257	October 6, 1903	.....	.....	.....
6258	October 6, 1903	.....	.....	.....
6259	October 6, 1903	.....	.....	.....
6260	October 6, 1903	.....	.....	.....
6261	October 6, 1903	.....	.....	.....
6262	October 6, 1903	.....	.....	.....
6263	October 6, 1903	.....	.....	.....
6264	October 6, 1903	.....	.....	.....
6265	October 6, 1903	.....	.....	.....
6266	October 6, 1903	.....	.....	.....
6267	October 6, 1903	.....	.....	.....
6268	October 6, 1903	.....	.....	.....
6269	October 6, 1903	.....	.....	.....
6270	October 6, 1903	.....	.....	.....
6271	October 6, 1903	.....	.....	.....
6272	October 6, 1903	.....	.....	.....
6273	October 6, 1903	.....	.....	.....
6274	October 6, 1903	.....	.....	.....
6275	October 6, 1903	.....	.....	.....
6276	October 6, 1903	.....	.....	.....
6277	October 6, 1903	.....	.....	.....
6278	October 6, 1903	.....	.....	.....
6279	October 6, 1903	.....	.....	.....
6280	October 6, 1903	.....	.....	.....
6281	October 6, 1903	.....	.....	.....
6282	October 6, 1903	.....	.....	.....
6283	October 6, 1903	.....	.....	.....
6284	October 6, 1903	.....	.....	.....
6285	October 6, 1903	.....	.....	.....
6286	October 6, 1903	.....	.....	.....
6287	October 6, 1903	.....	.....	.....
6288	October 6, 1903	.....	.....	.....
6289	October 6, 1903	.....	.....	.....
6290	October 6, 1903	.....	.....	.....
6291	October 6, 1903	.....	.....	.....
6292	October 6, 1903	.....	.....	.....
6293	October 6, 1903	.....	.....	.....
6294	October 6, 1903	.....	.....	.....
6295	October 6, 1903	.....	.....	.....
6296	October 6, 1903	.....	.....	.....
6297	October 6, 1903	.....	.....	.....
6298	October 6, 1903	.....	.....	.....
6299	October 6, 1903	.....	.....	.....
6300	October 6, 1903	.....	.....	.....
6301	October 6, 1903	.....	.....	.....
6302	October 6, 1903	.....	.....	.....
6303	October 6, 1903	.....	.....	.....
6304	October 6, 1903	.....	.....	.....
6305	October 6, 1903	.....	.....	.....
6306	October 6, 1903	.....	.....	.....
6307	October 6, 1903	.....	.....	.....
6308	October 6, 1903	.....	.....	.....
6309	October 6, 1903	.....	.....	.....
6310	October 6, 1903	.....	.....	.....
6311	October 6, 1903	.....	.....	.....
6312	October 6, 1903	.....	.....	.....
6313	October 6, 1903	.....	.....	.....
6314	October 6, 1903	.....	.....	.....
6315	October 6, 1903	.....	.....	.....
6316	October 6, 1903	.....	.....	.....
6317	October 6, 1903	.....	.....	.....
6318	October 6, 1903	.....	.....	.....
6319	October 6, 1903	.....	.....	.....
6320	October 6, 1903	.....	.....	.....
6321	October 6, 1903	.....	.....	.....
6322	October 6, 1903	.....	.....	.....
6323	October 6, 1903	.....	.....	.....
6324	October 6, 1903	.....	.....	.....
6325	October 6, 1903	.....	.....	.....
6326	October 6, 1903	.....	.....	.....
6327	October 6, 1903	.....	.....	.....
6328	October 6, 1903	.....	.....	.....
6329	October 6, 1903	.....	.....	.....
6330	October 6, 1903	.....	.....	.....
6331	October 6, 1903	.....	.....	.....
6332	October 6, 1903	.....	.....	.....
6333	October 6, 1903	.....	.....	.....
6334	October 6, 1903	.....	.....	.....
6335	October 6, 1903	.....	.....	.....
6336	October 6, 1903	.....	.....	.....
6337	October 6, 1903	.....	.....	.....
6338	October 6, 1903	.....	.....	.....
6339	October 6, 1903	.....	.....	.....
6340	October 6, 1903	.....	.....	.....
6341	October 6, 1903	.....	.....	.....
6342	October 6, 1903	.....	.....	.....
6343	October 6, 1903	.....	.....	.....
6344	October 6, 1903	.....	.....	.....
6345	October 6, 1903	.....	.....	.....
6346	October 6, 1903	.....	.....	.....
6347	October 6, 1903	.....	.....	.....
6348	October 6, 1903	.....	.....	.....
6349	October 6, 1903	.....	.....	.....
6350	October 6, 1903	.....	.....	.....
6351	October 6, 1903	.....	.....	.....
6352	October 6, 1903	.....	.....	.....
6353	October 6, 1903	.....	.....	.....
6354	October 6, 1903	.....	.....	.....
6355	October 6, 1903	.....	.....	.....
6356	October 6, 1903	.....	.....	.....
6357	October 6, 1903	.....	.....	.....
6358	October 6, 1903	.....	.....	.....
6359	October 6, 1903	.....	.....	.....
6360	October 6, 1903	.....	.....	.....
6361	October 6, 1903	.....	.....	.....
6362	October 6, 1903	.....	.....	.....
6363	October 6, 1903	.....	.....	.....
6364	October 6, 1903	.....	.....	.....
6365	October 6, 1903	.....	.....	.....
6366	October 6, 1903	.....	.....	.....
6367	October 6, 1903	.....	.....	.....
6368	October 6, 1903	.....	.....	.....
6369	October 6, 1903	.....	.....	.....
6370	October 6, 1903	.....	.....	.....
6371	October 6, 1903	.....	.....	.....
6372	October 6, 1903	.....	.....	.....
6373	October 6, 1903	.....	.....	.....
6374	October 6, 1903	.....	.....	.....
6375	October 6, 1903	.....	.....	.....
6376	October 6, 1903	.....	.....	.....
6377	October 6, 1903	.....	.....	.....
6378	October 6, 1903	.....	.....	.....
6379	October 6, 1903	.....	.....	.....
6380	October 6, 1903	.....	.....	.....
6381	October 6, 1903	.....	.....	.....
6382	October 6, 1903	.....	.....	.....
6383	October 6, 1903	.....	.....	.....
6384	October 6, 1903	.....	.....	.....
6385	October 6, 1903	.....	.....	.....
6386	October 6, 1903	.....	.....	.....
6387	October 6, 1903	.....	.....	.....
6388	October 6, 1903	.....	.....	.....
6389	October 6, 1903	.....	.....	.....
6390	October 6, 1903	.....	.....	.....
6391	October 6, 1903	.....	.....	.....
6392	October 6, 1903	.....	.....	.....
6393	October 6, 1903	.....	.....	.....
6394	October 6, 1903	.....	.....	.....
6395	October 6, 1903	.....	.....	.....
6396	October 6, 1903	.....	.....	.....
6397	October 6, 1903	.....	.....	.....
6398	October 6, 1903	.....	.....	.....
6399	October 6, 1903	.....	.....	.....
6400	October 6, 1903	.....	.....	.....
6401	October 6, 1903	.....	.....	.....
6402	October 6, 1903	.....	.....	.....
6403	October 6, 1903	.....	.....	.....
6404	October 6, 1903	.....	.....	.....
6405	October 6, 1903	.....	.....	.....
6406	October 6, 1903	.....	.....	.....
6407	October 6, 1903	.....	.....	.....
6408	October 6, 1903	.....	.....	.....
6409	October 6, 1903	.....	.....	.....
6410	October 6, 1903	.....	.....	.....
6411	October 6, 1903	.....	.....	.....
6412	October 6, 1903	.....	.....	.....
6413	October 6, 1903	.....	.....	.....
6414	October 6, 1903	.....	.....	.....
6415	October 6, 1903	.....	.....	.....
6416	October 6, 1903	.....	.....	.....
6417	October 6, 1903	.....	.....	.....
6418	October 6, 1903	.....	.....	.....
6419	October 6, 1903	.....	.....	.....
6420	October 6, 1903	.....	.....	.....
6421	October 6, 1903	.....	.....	.....
6422	October 6, 1903	.....	.....	.....
6423	October 6, 1903	.....	.....	.....
6424	October 6, 1903	.....	.....	.....
6425	October 6, 1903	.....	.....	.....
6426	October 6, 1903	.....	.....	.....
6427	October				

7249	December	1, 1903	Graduate	Des Moines	Indiana
7250	February	2, 1904	"	Fort Dodge	Buffalo
7251	April	3, 1904	"	Des Moines	Haynes
7252	April	5, 1904	By examination	Dunlap	
7253	April	5, 1904	"	Emerson	Ellston
7254	April	5, 1904	"	Hampton	Carbon
7255	May	20, 1904	Graduate	Des Moines	Illinois
7256	June	7, 1904	By examination	Ruthven	
7257	August	2, 1904	"	Burlington	Illinois
7258	August	2, 1904	Graduate	Earling	Perry
7259	August	2, 1904	"	Alta	
7260	October	4, 1904	By examination	Des Moines	New York
7261	December	6, 1904	"	Gray	West Side
7262	February	7, 1905	"	Waterloo	
7263	April	4, 1905	Graduate	Denison	Illinois
7264	April	23, 1905	"	Bunnells	
7265	April	23, 1905	"	Keokuk	
7266	June	4, 1905	"	Des Moines	Illinois
7267	June	6, 1905	"	Des Moines	South Dakota
7268	June	6, 1905	"	Ottumwa	
7269	June	6, 1905	By examination	Cedar Falls	Illinois
7270	July	12, 1905	Graduate	Des Moines	Nebraska
7271	July	12, 1905	By examination	Des Moines	
7272	June	4, 1890	As owner	Pomeroy	
7273	June	4, 1890	"	Anita	
7274	June	7, 1890	"	Atlantic	Grant
7275	July	17, 1890	"	Bloomfield	Ottumwa
7276	June	17, 1890	"	Casey	Mt. Pleasant
7277	June	7, 1890	As assistant	Dyart	
7278	June	23, 1890	As owner	Davenport	Nebraska
7279	June	23, 1890	"	Fulton	
7280	June	7, 1890	"	Hamburg	Maquoketa
7281	June	23, 1890	"	Decorah	
7282	June	9, 1890	"	Lansing	
7283	June	4, 1890	"	Malvern	
7284	July	2, 1890	"	Boone	
7285	July	2, 1890	As assistant	Boone	
7286	July	2, 1890	As owner	Des Moines	
7287	July	6, 1890	"	Oskan	
7288	June	4, 1890	"	Oskaloosa	
7289	June	4, 1890	"	Pleasant Plain	
7290	June	4, 1890	"	Palmyra	Des Moines
7291	July	5, 1890	"	Charles City	
7292	June	11, 1890	"	Springdale	
7293	June	12, 1890	"	Springdale	
7294	June	23, 1890	"	Silver City	
7295	July	23, 1890	"	Iowa City	
7296	July	16, 1890	As assistant	Wilton	
7297	November	16, 1890	By examination	Atlantic	Muscatine
7298	October	16, 1890	"		
7299					
7300					
7301					
7302					
7303					
7304					
7305					
7306					
7307					
7308					
7309					
7310					
7311					
7312					
7313					
7314					
7315					
7316					
7317					
7318					
7319					
7320					
7321					
7322					
7323					
7324					
7325					
7326					
7327					
7328					
7329					
7330					
7331					
7332					
7333					
7334					
7335					
7336					
7337					
7338					
7339					
7340					
7341					
7342					
7343					
7344					
7345					
7346					
7347					
7348					
7349					
7350					
7351					
7352					
7353					
7354					
7355					
7356					
7357					
7358					
7359					
7360					
7361					
7362					
7363					
7364					
7365					
7366					
7367					
7368					
7369					
7370					
7371					
7372					
7373					
7374					
7375					
7376					
7377					
7378					
7379					
7380					
7381					
7382					
7383					
7384					
7385					
7386					
7387					
7388					
7389					
7390					
7391					
7392					
7393					
7394					
7395					
7396					
7397					
7398					
7399					
7400					
7401					
7402					
7403					
7404					
7405					
7406					
7407					
7408					
7409					
7410					
7411					
7412					
7413					
7414					
7415					
7416					
7417					
7418					
7419					
7420					
7421					
7422					
7423					
7424					
7425					
7426					
7427					
7428					
7429					
7430					
7431					
7432					
7433					
7434					
7435					
7436					
7437					
7438					
7439					
7440					
7441					
7442					
7443					
7444					
7445					
7446					
7447					
7448					
7449					
7450					
7451					
7452					
7453					
7454					
7455					
7456					
7457					
7458					
7459					
7460					
7461					
7462					
7463					
7464					
7465					
7466					
7467					
7468					
7469					
7470					
7471					
7472					
7473					
7474					
7475					
7476					
7477					
7478					
7479					
7480					
7481					
7482					
7483					
7484					
7485					
7486					
7487					
7488					
7489					
7490					
7491					
7492					
7493					
7494					
7495					
7496					
7497					
7498					
7499					
7500					

ABSTRACT—CONTINUED.

Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
1977	December 6, 1880	By examination.	Oxford Junction.		Oklahoma.
1978	December 13, 1880	"	Clarinda		Kansas.
1979	April 26, 1881	"	Norwood		
1980	April 20, 1881	"	Harford	Pleasantville.	
1981	May 17, 1881	"	Woodburn		
1982	April 26, 1881	"	Macedonia		Washington.
1983	April 30, 1881	"	Westerville	Clearfield.	
1984	November 11, 1881	"	Weldon	Iowa Falls.	
1985	August 31, 1882	"	Koets		
1986	January 17, 1883	"	Bloom		
1987	January 27, 1883	"	Mondamin		
1988	April 2, 1883	"	Marshalltown.		
1989	February 5, 1884	"	Cedar Rapids.		
1990	May 29, 1884	"			
1991	July 15, 1884	"			
1992	July 16, 1884	"			
1993	October 7, 1884	"			
1994	March 3, 1885	"	Council Bluffs.		
1995	May 11, 1885	"	Marshalltown.		
1996	May 28, 1885	"			
1997	June 11, 1885	"			
1998	August 11, 1885	"			
1999	September 7, 1885	"			
2000	October 6, 1885	"			
2001	January 19, 1886	By examination.			
2002	February 16, 1886	By examination.	Dows City.		
2003	May 18, 1886	Graduate.	Sioux City.		
2004	May 17, 1886	Graduate.	Eagle Grove		
2005	September 7, 1886	Graduate.	Mt. Ayr.		
2006	October 5, 1886	By examination.	Charles City.		
2007	November 8, 1886	"	Cedar Rapids.	Grinnell	
2008	November 22, 1886	"	Avoca.		
2009	March 30, 1887	"	Bagley.		
2010	April 5, 1887	"	Goldfield.	Canawha.	
2011	April 19, 1887	"	Cromwell.	Sidney.	
2012	August 18, 1887	"	Holland.	Cedar Falls.	
2013	January 18, 1888	"			

Mann, A. W.

Mack, George J.

1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447	2448	2449	2450	2451	2452	2453	2454	2455	2456	2457	2458	2459	2460	2461	2462	2463	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	2479	2480	2481	2482	2483	2484	2485	2486	2487	2488	2489	2490	2491	2492	2493	2494	2495	2496	2497	2498	2499	2500	2501	2502	2503	2504	2505	2506	2507	2508	2509	2510	2511	2512	2513	2514	2515	2516	2517	2518	2519	2520	2521	2522	2523	2524	2525	2526	2527	2528	2529	2530	2531	2532	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556	2557	2558	2559	2560	2561	2562	2563	2564	2565	2566	2567	2568	2569	2570	2571	2572	2573	2574	2575	2576	2577	2578	2579	2580	2581	2582	2583	2584	2585	2586	2587	2588	2589	2590	2591	2592	2593	2594	2595	2596	2597	2598	2599	2600	2601	2602	2603	2604	2605	2606	2607	2608	2609	2610	2611	2612	2613	2614	2615	2616	2617	2618	2619	2620	2621	2622	2623	2624	2625	2626	2627	2628	2629	2630	2631	2632	2633	2634	2635	2636	2637	2638	2639	2640	2641	2642	2643	2644	2645	2646	2647	2648	2649	2650	2651	2652	2653	2654	2655	2656	2657	2658	2659	2660	2661	2662	2663	2664	2665	2666	2667	2668	2669	2670	2671	2672	2673	2674	2675	2676	2677	2678	2679	2680	2681	2682	2683	2684	2685	2686	2687	2688	2689	2690	2691	2692	2693	2694	2695	2696	2697	2698	2699	2700	2701	2702	2703	2704	2705	2706	2707	2708	2709	2710	2711	2712	2713	2714	2715	2716	2717	2718	2719	2720	2721	2722	2723	2724	2725	2726	2727	2728	2729	2730	2731	2732	2733	2734	2735	2736	2737	2738	2739	2740	2741	2742	2743	2744	2745	2746	2747	2748	2749	2750	2751	2752	2753	2754	2755	2756	2757	2758	2759	2760	2761	2762	2763	2764	2765	2766	2767	2768	2769	2770	2771	2772	2773	2774	2775	2776	2777	2778	2779	2780	2781	2782	2783	2784	2785	2786	2787	2788	2789	2790	2791	2792	2793	2794	2795	2796	2797	2798	2799	2800	2801	2802	2803	2804	2805	2806	2807	2808	2809	2810	2811	2812	2813	2814	2815	2816	2817	2818	2819	2820	2821	2822	2823	2824	2825	2826	2827	2828	2829	2830	2831	2832	2833	2834	2835	2836	2837	2838	2839	2840	2841	2842	2843	2844	2845	2846	2847	2848	2849	2850	2851	2852	2853	2854	2855	2856	2857	2858	2859	2860	2861	2862	2863	2864	2865	2866	2867	2868	2869	2870	2871	2872	2873	2874	2875	2876	2877	2878	2879	2880	2881	2882	2883	2884	2885	2886	2887	2888	2889	2890	2891	2892	2893	2894	2895	2896	2897	2898	2899	2900	2901	2902	2903	2904	2905	2906	2907	2908	2909	2910	2911	2912	2913	2914	2915	2916	2917	2918	2919	2920	2921	2922	2923	2924	2925	2926	2927	2928	2929	2930	2931	2932	2933	2934	2935	2936	2937	2938	2939	2940	2941	2942	2943	2944	2945	2946	2947	2948	2949	2950	2951	2952	2953	2954	2955	2956	2957	2958	2959	2960	2961	2962	2963	2964	2965	2966	2967	2968	2969	2970	2971	2972	2973	2974	2975	2976	2977	2978	2979	2980	2981	2982	2983	2984	2985	2986	2987	2988	2989	2990	2991	2992	2993	2994	2995	2996	2997	2998	2999	3000	3001	3002	3003	3004	3005	3006	3007	3008	3009	3010	3011	3012	3013	3014	3015	3016	3017	3018	3019	3020	3021	3022	3023	3024	3025	3026	3027	3028	3029	3030	3031	3032	3033	3034	3035	3036	3037	3038	3039	3040	3041	3042	3043	3044	3045	3046	3047	3048	3049	3050	3051	3052	3053	3054	3055	3056	3057	3058	3059	3060	3061	3062	3063	3064	3065	3066	3067	3068	3069	3070	3071	3072	3073	3074	3075	3076	3077	3078	3079	3080	3081	3082	3083	3084	3085	3086	3087	3088	3089	3090	3091	3092	3093	3094	3095	3096	3097	3098	3099	3100	3101	3102	3103	3104	3105	3106	3107	3108	3109	3110	3111	3112	3113	3114	3115	3116	3117	3118	3119	3120	3121	3122	3123	3124	3125	3126	3127	3128	3129	3130	3131	3132	3133	3134	3135	3136	3137	3138	3139	3140	3141	3142	3143	3144	3145	3146	3147	3148	3149	3150	3151	3152	3153	3154	3155	3156	3157	3158	3159	3160	3161	3162	3163	3164	3165	3166	3167	3168	3169	3170	3171	3172	3173	3174	3175	3176	3177	3178	3179	3180	3181	3182	3183	3184	3185	3186	3187	3188	3189	3190	3191	3192	3193	3194	3195	3196	3197	3198	3199	3200	3201	3202	3203	3204	3205	3206	3207	3208	3209	3210	3211	3212	3213	3214	3215	3216	3217	3218	3219	3220	3221	3222	3223	3224	3225	3226	3227	3228	3229	3230	3231	3232	3233	3234	3235	3236	3237	3238	3239	3240	3241	3242	3243	3244	3245	3246	3247	3248	3249	3250	3251	3252	3253	3254	3255	3256	3257
------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

ABSTRACT—CONTINUED.

Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
4600	March 14, 1894	Graduate	Charles City.	Oelwein.	
4617	April 8, 1894	By examination.	Cedar Falls	Bethesda.	
4625	April 8, 1894	"	Fairfield		
4631	May 1, 1894	"	Ireton.		
4674	May 16, 1894	"	Fort Dodge.		
4697	July 8, 1894	"	Council Bluffs.		
4718	September 4, 1894	"	Manson.		
4716	September 4, 1894	"	Cedar Falls.		
4740	May 16, 1894	"	Anita.		
4779	November 31, 1894	"	Council Bluffs.		
4815	February 6, 1895	"	Charles City.		
4836	March 8, 1895	"	Clearfield.	Lenox.	
4846	March 19, 1895	"	Des Moines.	Germania.	
4859	April 2, 1894	"	Swaledale.		
4902	July 2, 1895	"	Rudd.	Gray.	
4912	July 6, 1895	"	Lake View.		
4935	July 1, 1895	"	Linden.		
4947	October 1, 1895	"	Davenport.		
5041	December 2, 1895	Graduate	Waterloo	Oyden, Utah.	
5044	April 7, 1896	By examination	Conrad	Onslow.	
5070	April 21, 1896	"	Cedar Rapids	Iowa City.	
5071	May 5, 1896	"	Manson	Fonda.	
5081	May 5, 1896	"	Moorehead	Castana.	
5089	May 5, 1896	"	Iowa Falls	Illinoia.	
5092	June 2, 1896	"	Akron		
5106	June 2, 1896	"	Forest City	Texas.	
5114	July 7, 1896	"	Ocean	Arnold's Park.	
5116	July 11, 1896	"	Eldon		
5165	July 1, 1896	"	Holland	Manson.	
5168	October 6, 1896	"	Betherville.	Silver City, N. M.	
5170	November 10, 1896	"	Jenup	Nebraska.	
5174	December 1, 1896	"	Lake City	Waterloo.	
5176	December 1, 1896	"	Charlotte		
5196	February 2, 1897	"	Janesville	Creco.	
5222	February 2, 1897	"	Melrose		
5234	February 2, 1897	"	Dunkerton.		
5311	March 2, 1897	"	New Hampton.	Austin, Minnesota.	

Name	By exam nation	Date	Place
Mammen, M. H.	By exam nation	4, 1897	Le Mars
Miller, C. J.	"	6, 1897	Waterloo
Miller, D. J.	"	8, 1897	Algona
Meiklan, H. F.	"	4, 1897	Burlington
Miller, J. J.	"	4, 1897	Ackley
Mollison, A. E.	"	7, 1897	Ottumwa
Masters, C. L. E.	"	8, 1897	Maynard
Mann, B. M.	"	8, 1897	Alexander
Michael, F. L.	"	6, 1897	Ottumwa
Marqule, F. A.	"	9, 1897	Belle Plaine
Meyer, H. O.	"	1, 1898	Siourney
Morrow, C. F.	"	1, 1898	Blanchard
Mathews, J. R.	"	5, 1898	Iowa Falls
Markham, A. J.	"	5, 1898	Marion
Maynard, W. H.	"	6, 1898	Ottumwa
Moment, E. F.	"	5, 1898	Central City
Matthiesen, J. O.	"	7, 1898	Clinton
Miller, C. V.	"	6, 1898	West Liberty
Mills, F. W.	"	1, 1899	Ottumwa
Marsen, W. A.	"	6, 1898	Guthrie Center
Morrison, C. J.	"	8, 1899	Cedar Rapids
Munn, J. W.	"	8, 1899	Des Moines
Miller, W. O.	"	8, 1899	Atlantic
Monter, D. O.	"	7, 1899	Macedonia
Morrison, Ed D.	"	4, 1899	Des Moines
	"	29, 1899	Algona
	"	2, 1899	Cedar Rapids
	"	2, 1899	Stout City
	"	2, 1899	Algona
	"	4, 1899	Dubuque
	"	4, 1899	Muscatine
	"	4, 1899	Des Moines
	"	4, 1899	Independence
	"	18, 1899	Masonville
	"	1, 1899	Des Moines
	"	1, 1899	Des Moines
	"	1, 1899	Waterloo
	"	1, 1899	Charles City
	"	6, 1899	Des Moines
	"	28, 1899	Davenport
	"	20, 1899	Des Moines
	"	9, 1899	Latte
	"	9, 1899	Waterloo
	"	9, 1899	Clarinda
	"	6, 1899	Clinton
	"	21, 1900	Ft. Madison
	"	4, 1900	Des Moines
	"	4, 1900	Lohrville
	"	4, 1900	Parkersburg
	"	8, 1900	Villaca

ABSTRACT—CONTINUED.

Number of certificate.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
5984	April 2, 1900	By examination	Council Bluffs.	Nebraska.	
5992	C.	June 1, 1900	Graduate	Mc Ayr.		
6006	June 1, 1900	"	Horseshoe.		
6008	June 1, 1900	"	Charles City.	Washington.	
6020	May 1, 1900	"	Mayton	Belle Plaine.	
6090	July 8, 1900	"	Iowa Falls.		
6108	August 7, 1900	By examination	Boons.		
6110	August 7, 1900	"	Des Moines.	Colorado.	
6131	September 4, 1900	Graduate	Valley Junction.		
6138	October 2, 1900	"	Fontanelle.	Stuart.	
6145	October 2, 1900	"	Earlham.	Lanesboro.	
6181	December 4, 1901	"	Conrad.	Minnesota.	
6188	December 4, 1901	"	Galva.		
6201	December 4, 1901	"	Greenfield.	Bedford.	
6228	December 4, 1901	"	Grinnell.		
6233	February 4, 1901	"	Davenport.	Ohio.	
6243	March 1, 1901	"	Crystal Lake.		
6257	March 1, 1901	"	Britt.		
6270	April 2, 1901	Graduate	Ames.	Clarion.	
6272	May 7, 1901	"	Council Bluffs.	Nebraska.	
6275	May 7, 1901	By examination	Monroe.	Jamaica.	
6305	May 7, 1901	"	Edgewood.	Indiana.	
6334	June 4, 1901	"	Luxemburg.	Monona.	
6380	June 4, 1901	"	What Cheer.	Arion.	
6377	August 6, 1901	Graduate	Cedar Falls.		
6390	August 6, 1901	By examination	Des Moines	Valley Junction.	
6406	September 2, 1901	Graduate	Victor.	Colorado.	
6407	September 2, 1901	"	Corringtonville.	Quimby.	
6430	September 8, 1901	By examination	Corning.	Nebraska.	
6437	September 8, 1901	Graduate	Carson.	Wisota.	
6438	October 1, 1901	"	Waterloo.		
6439	October 1, 1901	"	Council Bluffs.		
6442	October 1, 1901	"	Ackley.	Indiana.	
6476	W	November 2, 1901	By examination	Elgin.		
6510	December 3, 1901	"	Hanwell.		
6557	February 4, 1902	"	Des Moines.	Colo.	
6575	March 4, 1902	"	Des Moines.	Davenport.	
6576	March 4, 1902	"	Des Moines.	Missouri.	

Martin, Gen. E.
Mitchell, Edward.

ABSTRACT—CONTINUED.

Name.	Date of Registration.	How Registered.	Place of Registration.	Latent Reported Address.	Remarks.
7431 Muegge, H. A.	July 1, 1904	Graduate	Elkader	Des Moines.	
7445 McCalley, J. A.	July 1, 1904	By examination	Fairbank.		
7470 Miller, J. E.	August 2, 1904	"	Alton.	Ames.	
7471 Muegge, H. A.	August 2, 1904	"	Whittemore.		
7505	August 2, 1904	Graduate	Davenport.	Mason City.	
7518	October 4, 1904	"	New Hampton.	Indiana.	
7548	December 6, 1904	"	Des Moines.		
7549	December 6, 1904	By examination	Dows.	Shenandoah.	
7571	December 6, 1904	"	Moore.		
7591	February 7, 1905	Graduate	Gravely.		
7608	February 7, 1905	"	Busey.		
7609	April 4, 1905	By examination	Iowa City	Grafton.	
7651	June 6, 1905	Graduate	Mt. Ayr.		
7682	June 19, 1905	"	Des Moines.		
7683	June 19, 1905	"	Des Moines.		
7684	June 19, 1905	"	Des Moines.		
7694	July 12, 1905	"	Iowa City	Pennsylvania.	
7707	July 12, 1905	By examination	Brayton.		
7714	August 1, 1905	Graduate	Sloan.		
7725	August 1, 1905	"	Oakland.		
7737	August 1, 1905	"	Des Moines.	Colorado.	
7744	August 1, 1905	"	Des Moines.	Garwin.	
7760	August 1, 1905	By examination	Mt. Ayr	Boone.	
186	August 19, 1905	As owner	Elwood.		
189	August 19, 1905	As assistant	Elwood.		
300	June 4, 1900	"	Bloomfield.		
345	June 4, 1900	"	Centerville.		
606	June 7, 1900	As owner	Keokuk.		
1072	July 20, 1900	By examination	Independence.		
1709	August 12, 1900	"	Albia	Illinois.	
1873	October 21, 1900	"	Morning Sun	Oskaloosa.	
2103	June 16, 1901	"	Vail	Los Angeles.	
2143	June 5, 1901	"	Clarkeville	Algonia.	
2161	July 11, 1901	"	Monona	Nebraska.	
2204	October 7, 1901	"	Victor	Missouri.	
2618	December 24, 1901	"	Gravely.		
2624	April 11, 1903	"	Marne.		
McClusa, O. H.					

Month	Day	By examination	Place	Location
April	9, 1892	By examination	Hepburn	Perla.
June	9, 1892	"	Monroe	Flournoe, Kan.
February	5, 1893	"	Ames	Des Moines.
January	27, 1893	"	Mondamin.	
February	26, 1893	"	Rock Valley.	Idaho.
July	15, 1894	"	Ooon Rapids	Fullerton, Neb.
October	15, 1895	"	Des Moines	Fort Dodge.
January	6, 1896	"	Dakota City.	
September	18, 1896	"	Des Moines	
March	1, 1897	"	Missouri Valley.	
March	8, 1897	"	Ollie.	
May	17, 1897	"	Charter Oak.	
February	28, 1898	"	Marshalltown.	
March	5, 1899	Graduate	Bloomfield	Mt. Sterling.
September	17, 1899	By examination	Humeston.	
April	21, 1900	"	Perla	Gravity
June	24, 1901	"	Cresco	Webster City.
May	5, 1901	"	Independence	Mason City.
July	7, 1901	"	Coring	Kansas.
September	8, 1911	Graduate	Greenfield	Ryan.
November	8, 1901	By examination	Iowa City	Genoa, Neb.
February	1, 1902	"	La Porte.	Schleswig.
June	7, 1902	By examination	Belle Plaine	
July	7, 1902	"	Des Moines.	Afton.
August	2, 1903	"	Swan	
October	4, 1903	"	Shellsburg	
March	7, 1903	"	Grinnell	
April	4, 1903	"	Des Moines.	
April	31, 1903	"	Cedar Rapids.	
May	2, 1903	"	Rock Valley	West Union.
May	9, 1903	"	Lost Nation	Delmar.
May	25, 1903	"	Seymour.	
May	30, 1903	"	Des Moines.	
May	30, 1903	"	Boone.	Olin.
October	8, 1903	"	Caecade	Lehrville.
November	28, 1903	"	Muscataine.	
March	6, 1904	"	Clare	Marshalltown.
April	17, 1904	"	Lost Nation.	
June	5, 1904	"	Des Moines.	
May	5, 1903	"	Vinton	
October	28, 1904	"	Fontanelle.	
March	12, 1905	"	Oreston	
April	29, 1904	"	Ainsworth	
October	1, 1905	"	Redding	
November	5, 1905	"	Le Mars	
March	8, 1906	"	Buffalo Center	
April	7, 1906	"	Marble Rock	
January	14, 1907	"	Victor	
January	14, 1907	"	Emerson	
July	6, 1907	"	Centerville.	
September	7, 1907	"		In Colorado.

In Colorado,

ABSTRACT—CONTINUED.

Number of Certificate.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
5381	January 4, 1898	By examination	Des Moines	Gilbert Station.	
5382	February 1, 1898	"	"	Independence.	
5457	April 5, 1898	"	"	"	
5453	April 5, 1898	"	"	Harlan.	
5496	April 5, 1898	"	"	"	
5476	April 5, 1898	"	"	"	
5505	June 7, 1898	"	"	"	
5380	July 28, 1898	Graduate	St. Dodge	Humboldt.	
5397	September 7, 1898	"	Adair	Mondamin.	
5392	November 1, 1898	"	Hartley	"	
5385	April 4, 1899	By examination	Lake City	"	
5386	May 17, 1899	Graduate	Des Moines	"	
5724	July 6, 1899	"	Monticello	"	
5759	August 1, 1899	"	Brooklyn	"	
5808	September 5, 1899	"	Des Moines	West Union.	In Nebraska.
5855	November 9, 1899	"	Granger	Oxford.	In Illinois.
5892	January 2, 1900	By examination	Glenwood	Oakville.	
5907	April 3, 1900	"	Ehler	Rocko, Ill.	
6042	January 3, 1900	"	Des Moines	Yale.	
6096	August 7, 1900	Graduate	Sioux City	Tama.	
6106	August 7, 1900	"	Des Moines	Kirkman.	
6115	September 4, 1900	"	Van Horn	Wellsville, Mo.	In Nebraska.
6176	November 8, 1900	"	Goodell	Idaho.	
6189	December 4, 1900	By examination	Occola	Woodburn.	
6317	February 5, 1901	"	Spencer	Algona.	
6361	April 2, 1901	Graduate	Sioux City	Jackson, Neb.	
6362	June 7, 1901	Graduate	Melbourne.	Yetter.	
6385	June 7, 1901	Graduate	Maquoketa.	"	
6395	May 7, 1901	Graduate	Glenwood	Illinois.	
6396	June 7, 1901	Graduate	Dubuque	"	
6395	June 4, 1901	By examination	Iowa City	"	
6395	June 2, 1901	Graduate	New Hampton	"	
6395	July 2, 1901	By examination	Postville	"	
6395	August 6, 1901	Graduate	Grant	"	
6391	1, 1901	Graduate	LaPorte	Chester.	
6440	October 1, 1901	Graduate	Des Moines	Blanchard.	
6557	January 4, 1902	Graduate	Williamsburg	Cedar Rapids.	
6552	March 4, 1902	Graduate	Sioux Rapids	Belmond.	
6605	McEnroe, Geo. A.	May	Graduate	Sioux Rapids	Mechanicsville.	

In Wisconsin					
No.	Name	Date	Examination	Place	Location
6007	McCarthy, J. L.	May	Graduate	Des Moines	Washington.
6009	McDaniel, Ann B.	June	Graduate	Des Moines	Des Moines.
6017	McCreery, F. F.	February	Graduate	Roll	Glenwood.
6051	McLucas, V. R.	February	By examination	Winterset	New Hampton.
6054	McArthur, W. H. B.	February	By examination	Marengo	Haynes.
7059		July	Graduate	Rockwell City	Moravia.
7121		August	"	Des Moines	Ames.
7228		November	"	Alta Vista	
7329		April	"	Washington	
7353		April	"	Des Moines	
7353		April	By examination	Wapello	
7472		August	Graduate	Winfield	
7412		July	"	Charles City	
7512		October	"	Algona	
7530		October	By examination	Des Moines	
7558		December	"	Des Moines	
7592		February	"	Centerville	
7604		April	"	Lewis	
7678		July	Graduate	Grant Center	
7679		July	"	Ottumwa	
7680		July	"	Des Moines	South Dakota.
7751		July	"	Rockwell City	
11		August	"	Lake Mills	
50		June	As owner	Muscatine	
63		June	As assistant	Hartford	
247	Nicholas, William M.	June	"	Atlantic	
206	Nicholas, Edward	June	"	Belle Plaine	
722	Norton, H. M.	June	"	Kent	
1112	Niehaus, E. W.	June	As assistant	Burlington	
1472	Nash, A. F.	July	"	Sioux City	
1604		July	By examination	Edgewood	
2191		December	"	Tama City	Trer, City.
2373		August	"	Lacona	Mason City.
2503		November	"	Maquoketa	Newell.
2556		March	"	Dubuque	Maquoketa.
2784		December	"	Lansing	
2761	Nugent, Ed. D.	April	Graduate	Oskaloosa	
3021	Nugent, H. D.	June	By examination	Oskaloosa	
3188	Norton, Charles F.	May	"	Des Moines	
3306	Nichols, W. E.	February	"	Sheffield	Nevada.
3731	Nordstrom, S. G.	April	"	Dayton	Sioux Rapids.
3771	Nix, John M.	September	"	Dyersville	Ackley.
3825	Northrup, A. B.	November	"	Iowa City	
3858	Neumann, E. L. J.	February	Graduate	Burlington	Dayton.
3903	Nordstrom, J. F.	February	By examination	Sioux Rapids	Essex.
3904	Newquist, Frederick	July	"	Stanton	
3963	Namur, Charles	July	"	Des Moines	
3960	Nadler, Frank	September	Graduate	Davenport	
3968	Neuman, W. B.	October	By examination	Waterloo	
4008	Nalden, E. R.	March	"	Woodward	

ABSTRACT—CONTINUED.

Number of certificate.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
4084	Nelson, O. H.	June 26, 1891	By examination	Des Moines.	Guthrie Center.	
4089	Ney, Robert J.	July 7, 1891	"	Spencer	Paulina.	
4344	Nigg, Henry A.	December 18, 1892	"	Merrill.		
4475	Nix, Mike.	June 7, 1894	"	Ackley.	Hubbard.	
4521	Nichols, C. Ellis.	September 23, 1893	"	Sioux City.		
4549		November 28, 1893	"	Britt.	Corwith.	
4618		March 15, 1894	"	Bedford		
4685		July 8, 1894	By examination	Humboldt.	Forest City.	
4724		September 4, 1894	"	Marshalltown.	St. Anthony.	
4775		November 18, 1894	"	Panora.	Des Moines.	
4916		August 9, 1893	"	Oreco.	Jefferson.	
4959		December 10, 1893	"	Marathon	Albert City.	
5002		April 21, 1896	"	Ruthven		
5065		May 5, 1896	"	Danbury	Pearson.	
5093		June 2, 1896	"	Webster City.		
5190		August 4, 1896	"	Stanwood.	Wall Lake.	
5158		October 25, 1896	Graduate	Alburnette.		
5453		March 1, 1898	By examination	Oreston.		
5493		March 31, 1898	Graduate	Blanchard.	Modale.	
5515		July 27, 1898	"	Des Moines.		
5635		February 7, 1899	By examination	Ottumwa.		
5642		March 7, 1899	"	Ottumwa.		
5769		August 1, 1899	Graduate	Pella.	Lovilla.	
5906		September 5, 1899	"	Rockwell.	Newton.	
5916		September 5, 1899	By examination	Aurelia.	Pennsylvania.	
5978		December 5, 1899	"	Des Moines.	North Dakota.	
5995		January 2, 1900	"	Clinton.		
6004		August 7, 1900	"	Bancroft.		
6157		September 4, 1900	"	Landing.		
6239		February 5, 1901	Assistant.	Atlantic.		
6351		July 2, 1901	By examination	Siouxraey.		
6354		January 7, 1902	"	Promise City.		
6549		February 4, 1902	"	Lake Mills.	Thorp.	
6556		March 4, 1902	Graduate	Des Moines.	Wisconsin.	
6590		March 4, 1902	By examination	Algona.		
6604	Norton, G. U.	April 1, 1903	Graduate	Livermore.	Humboldt.	
6619	Nixon, A. W.	April 1, 1903	"	Iowa City.	Jamaica.	

6706	Norton, R. A.	June	3, 1902	Graduate	Grafton	Matlock.	Wisconsin.
6818	North, E. B.	August	21, 1902	"	Dubuque.	"	Indiana.
6819	Menfeld, Frank	August	21, 1902	"	Davenport.	"	"
6928	Nickel, Arthur	February	8, 1903	By examination	Des Moines.	"	"
6955	Newman, W. L.	February	8, 1903	"	Marshalltown.	"	"
6956	Noble, Chas. W.	February	8, 1903	"	Dallas	"	"
6974	Nye, P. N.	March	14, 1903	Graduate	Stuart.	Avery.	"
7001	Nacke, Frank J.	April	7, 1903	By examination	Wat Point.	Burlington.	"
7060	Nixon, S. R.	July	1, 1903	Graduate	Rockwell City.	Glenwood	"
7080	Neely, J. W.	August	1, 1903	"	Des Moines	"	"
7191	Nugent, E. J.	October	6, 1903	"	Guthrie Center	Menlo.	"
7255	Nalby, B. L.	December	1, 1903	By examination	Lake Mills.	"	"
7415	Newell, J. S.	July	7, 1904	Graduate	Waverly	"	"
7419	Novak, J. H.	July	1, 1904	By examination	Iowa City.	"	"
7598	Norgaard, J. J.	February	7, 1905	Graduate	Harlan	"	"
7683	Nichols, J. G.	July	12, 1905	"	Neale Plaine.	"	"
7740	Nelson, L. L.	August	1, 1905	"	Woodbine.	"	"
874	"	June	10, 1905	As owner	Clinton	"	"
420	"	June	12, 1905	As assistant	Des Moines.	"	"
951	"	June	11, 1905	As owner	New Hampton.	"	"
1118	"	July	7, 1905	"	Chilesa	Hartwick.	"
1264	"	June	7, 1905	As assistant	Taber.	"	"
1462	"	July	15, 1905	"	Kippey	"	"
1530	"	December	15, 1905	By examination	Fort Dodge.	"	"
1980	"	October	4, 1905	"	Oskawana	"	"
2233	"	October	4, 1905	"	Farley	"	"
2391	Olive, Edwin A.	November	28, 1905	"	Bayard	Dubuque.	"
2548	Oshorne, G. S.	October	6, 1905	"	Rayerton.	Scranton.	"
2556	Ohilltree, V. B.	April	7, 1905	"	Keokuk	Missouri Valley.	"
3027	Owen, C. N.	June	15, 1905	"	Marion	"	"
3107	Oleson, Monrad J.	December	17, 1905	"	Des Moines.	"	"
3475	Olive, L. C.	June	18, 1905	"	Scranton.	"	"
3185	Odtorne, Ben G.	July	11, 1905	"	Des Moines.	Oelwein.	"
3585	Ogg, John J.	January	29, 1905	"	Lime Springs.	"	"
3599	"	February	16, 1905	"	Eluda	"	"
3537	"	February	5, 1905	"	Washington.	Mt. Pleasant.	"
3906	"	July	12, 1905	Graduate	Keokuk.	"	"
3953	"	November	8, 1905	By examination	Marion	"	"
4039	"	March	30, 1905	"	Cedar Rapids	Indianola	In Colorado.
4222	"	February	1, 1905	"	Thayer	Colorado.	"
4342	"	December	6, 1905	"	Grinnell.	"	"
4442	Overton, W. T.	May	2, 1905	"	Hampton.	Geneva.	In Oklahoma.
4467	Ormsby, F. E.	June	6, 1905	"	Marquette	"	"
4485	Olney, V. L.	July	11, 1905	"	Shell Rock.	"	"
4634	Owens, Frank	July	20, 1905	"	Bloomfield.	"	"
4646	Owens, Nat	April	4, 1905	"	Bloomfield.	"	"
4814	Olive, Richard W.	February	5, 1905	"	Scranton.	Prairie City.	In Missouri.
4955	Oehring, Richard W.	March	28, 1905	"	Elkader.	"	In O. T.
4978	O'Day, J. W.	May	7, 1905	"	Daubury.	"	"
4918	Ocker, Leroy M.	August	6, 1905	"	Toledo.	Charl n.	"

ABSTRACT—CONTINUED.

Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
5009 Oelke, W. C.	March 3, 1896	By examination.	Goldfield.	Corwith.	
5054 Olinger, J. B.	April 17, 1896	Graduate.	Maxwell.	Oedar Falls.	
5060 Oard, A. W.	April 21, 1896	By examination.	Fort Dodge.	Ottumwa.	
5094 Orr, A. L.	June 2, 1896	"	Mystic.	Waterloo	
5184 Ordway, J. C.	January 5, 1897	"	New Hartford.	.....	In Missouri.
5248 Or'leah, George.	May 7, 1897	"	Burlington.	.....
5393 O'Malley, J. E.	February 1, 1898	"	Perry.	.....
5409 O'Leary, Mike.	March 1, 1898	"	Woodbine.	.....
5433 O'Day, I. J.	March 1, 1898	"	Danbury.	.....
5566 O'Connor, T. E.	September 7, 1898	Graduate.	George.	.....
5578 Ott, C. A.	October 4, 1898	"	Mt. Pleasant.	.....
5787 O'Connor, T. G.	August 1, 1899	By examination.	Maloy.	Imogene.	
5789 Osborne, J. S.	August 1, 1899	"	Des Moines.	.....
5838 O'son, Olan F.	September 5, 1899	Graduate.	Badger.	.....
5911 O'Neil, David D.	September 5, 1899	By examination.	Ackley.	Allison.	
6010 Upper, John C.	May 1, 1900	Graduate.	New Albin.	Waukon.	
6119 Orange, M. D.	September 4, 1900	"	Centerville.	.....
6297 Olson, O. E.	January 7, 1901	By examination.	Hubbard.	Lemars.	
6394 O'Meara, George R.	August 6, 1901	Graduate.	Elma.	South Dakota.	
6401 O'Malley, W. P.	September 2, 1901	"	Perry.	.....
6491 Olen, T. O.	December 8, 1901	"	Stoux City.	North Dakota.	In N. Dakota.
6657 Ols, B. S.	April 22, 1901	"	Des Moines.	Brenson.	In Illinois.
6736 Oertel, F. H.	July 8, 1902	By examination.	Oto.	.....
6855 Oliver, B. L.	October 7, 1902	Graduate.	Dubuque.	.....
6908 O-weller, Albert.	December 2, 1902	By examination.	Ash'on.	.....
7122 Ostrander, W. H.	August 4, 1903	Graduate.	Stuart.	Valley Junction.	
7245 Olson, H. O.	December 1, 1903	"	Des Moines.	South Dakota.	
7256 Oslucup, C. H.	December 1, 1903	By examination.	Oedar Rapids.	.....
7339 Orth, L. P.	December 5, 1904	Graduate.	Clarinda.	.....
7356 Osborn, E. O.	April 5, 1904	By examination.	Knoxville.	.....
7879 O'Harrow, R. E.	May 20, 1904	Graduate.	Des Moines.	Mt. Auburn.	
7890 Oeth, A. J.	May 20, 1904	"	Dubuque.	Illinois.	
7478 Overholser, R. L.	August 2, 1904	By examination.	Correctionville.	South Dakota.	
7716 Oratood, E. W.	August 1, 1905	Graduate.	Stoux City.	South Dakota.	
7722 Orris, R. W.	August 1, 1905	"	Earlham.	.....

128	June	15, 1880	As owner	St. Madison.	New London.
481	June	22, 1880	"	Des Moines.	
637	June	2, 1880	"	Griawold	
837	June	1, 1880	As assistant	Mt. Pleasant.	
838	June	30, 1880	As owner	McGregor.	
932	June	5, 1880	"	Newton.	
1161	July	9, 1880	As assistant	Marshalltown.	
1225	July	10, 1880	As owner	Sidney.	
1226	June	2, 1880	As assistant	Sibley.	
1249	June	4, 1880	As owner	West Liberty.	
1538	August	6, 1880	"	Dubuque.	
1714	September	7, 1880	"	Brooks.	
1868	July	28, 1880	By examination	Wapello.	Stratford.
1909	July	30, 1880	"	Des Moines	
1954	January	22, 1881	As assistant	Kirkville.	Salem.
2156	June	28, 1881	By examination	Blairtown.	Sutherland.
2260	February	27, 1882	"	Peterson	Des Moines.
2415	April	28, 1882	"	Pocahontas Center.	Monkton.
2521	September	5, 1882	"	Moravia.	Edgeway
2550	December	1, 1882	"	Oreco.	Regie Grove.
2632	March	2, 1883	"	Manson	
2675	September	5, 1883	"	Harlan.	
2737	April	9, 1884	"	Muscatine.	
2758	May	26, 1884	"	Iowa City	Oakalooma.
2758	February	3, 1885	"	Spencer	Rock Valley.
2835	September	1, 1885	"	Riverton	Shenandoah.
2918	November	4, 1885	"	O-kalooma.	
2942	November	11, 1885	"	Red Oak.	Davenport.
3154	February	25, 1887	"	Ida Grove.	
3157	February	22, 1887	"	Dubuque.	Minnesota.
3180	March	18, 1887	"	Gladbrook.	Blairtown.
3357	June	17, 1887	"	Paulina.	Cedar Falls.
3393	August	7, 1887	"	Le Mars.	
3399	August	17, 1887	"	Forest City.	Linnville.
3418	March	18, 1887	"	Peru	In Missouri.
3426	March	6, 1888	"	Parkersburg	
3453	May	20, 1888	"	Shambaugh.	Corning.
3490	May	1, 1888	"	Waukon.	
3504	August	7, 1888	"	Sloan.	
3526	February	7, 1889	"	West Union.	
3576	March	27, 1889	"	Ohio	
3624	June	11, 1889	"	Yall.	(Olin only).
3726	July	2, 1889	"	Unionville.	Marona.
3806	September	4, 1889	"	Unionville.	Garden Grove.
3837	April	1, 1890	"	Carroll.	Fenda.
3837	April	1, 1890	"	Cedar Falls.	
3835	April	22, 1890	"	Britt.	Oklahoma Territory.
3914	July	24, 1890	"	Grinnell.	
3934	September	11, 1890	"	Cedar Rapids.	
3937	November	5, 1890	"	Cedar Rapids.	
4009	March	21, 1891	"	Adair.	Atlantic.

ABSTRACT—CONTINUED.

Number of Certificate	Name.	Date of Registration.	How Registered	Place of Registration.	Latest Reported Address.	Remarks.
4051	Park, L. E.	May 7, 1891	By examination	Tracy.	Keokuk.	
4049	Pearson, L. B.	June 2, 1891	"	Des Moines.	Wash'a.	
4071	Phillips, C. W.	June 2, 1891	"	Selma.	Oakville.	
4033	Phifer, C. F.	August 4, 1891	"	Akeley.	Ashton, Ill.	
4152	Pennington, G. B.	December 1, 1891	"	Quincy.	Winteret.	
4206	Petersmeyer, William	February 6, 1892	"	Odell.	Dallas Center.	
4279	Peck, Jesse O.	July 26, 1892	"	Des Moines.	Grimes.	
4345	Petit, Louis F.	December 18, 1892	"	Des Moines.		
4334	Parsons, A. H.	February 21, 1893	"	Akron.		
4388	Platt, J. H.	February 28, 1893	"	Mane'zuma.		
4431	Pennebaker, J. W.	July 11, 1893	"	Union.	Tarkio, Mo.	
4536	Parman, E. J.	September 5, 1893	"	Odell Falls.	Decorah.	
4622	Parker, O. E.	September 5, 1893	"	Sibby.		
4334	P. O.	November 9, 1893	"	Atlantic.	Nebraska.	
4635	P.	March 6, 1894	"	Bloomfield.	Cincinnati.	
4643	P.	April 17, 1894	"	Montezuma.	Hawarden.	
4643	P.	April 20, 1894	"	Monten.	Bloomfield.	
4643	P.	May 1, 1894	"	Odell.	Applington.	
4688	P.	June 26, 1894	"	Kirkley.	Alford.	
4691	P.	July 8, 1894	"	Ironton.	Buffalo Center.	
4698	P.	July 9, 1894	"	Way.		
4748	P.	September 25, 1894	"	Onawa.		
4760	P.	October 8, 1894	"	Hawarden.		
4812	P.	March 28, 1895	"	Goldfield.	Cambridge.	
4928	P.	August 6, 1895	"	Hazelton.	Boone.	
4978	P.	January 7, 1896	"	Webster City.		
4988	P.	February 4, 1896	"	Williamshurg.		
5049	Preble, O. H.	April 7, 1896	"	Humboldt.		Oklahoma.
5053	Petersmeyer, E. O.	May 5, 1896	"	Humboldt.		
5097	Penney, T. A.	June 2, 1896	"	Lozan.		
5126	Page, F. W.	September 1, 1896	"	Wah Lake.	Webster City.	
5317	Pann, W. B.	March 2, 1897	"	Creco.	South Dakota.	
5329	Pohle, E. B.	March 9, 1897	"	Dexter.	Ware.	
5340	Pfeiffer, W. F.	April 6, 1897	"	Odell Falls.	Missouri.	
5341	Pederson, G. M.	April 6, 1897	"	Harlan.		
5251	Phillip, A. C.	April 6, 1897	"	Earville.	Manchester.	
5353	Peterson, W. J.	April 6, 1897	"	Fairfield.		Colorado.

ABSTRACT—CONTINUED.

Number of certificate.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
6421	Parsons, Wm. A.	December 8, 1901	Graduate	Algona	Barnes City.	
6420	Paradise, W. E.	January 6, 1902	By examination	Des Moines	Elira.	Illinois.
6448		February 4, 1902	Graduate	Oakland		
6564		March 4, 1902	Graduate	Dubuque		
6560		March 4, 1902	"	Adair		
6548	A. M.	1, 1902	"	Independence		Illinois.
6596		1, 1902	"	Des Moines	Alexander.	
6628		1, 1902	By examination	Albia	Centerville.	
6631		22, 1902	Graduate	Des Moines	Sioux City.	
6656		22, 1901	"	Des Moines		
6663		5, 1902	"	Ottumwa		South Dakota.
6686		5, 1902	By examination	Shellsburg		Illinois.
6693		5, 1902	Graduate	Des Moines		South Dakota.
6774		5, 1902	"	Des Moines		Illinois.
6833		5, 1902	"	Des Moines		Minnesota.
6900		2, 1903	By examination	Des Moines	Salem.	
6967		2, 1903	Graduate	Des Moines	Waukon.	
7008		7, 1903	By examination	Pocahontas	South Dakota.	
6907		5, 1902	By examination	Wapello		
7028		2, 1903	"	Oakalosa		
7071		1, 1903	Graduate	Des Moines	Indiana.	
7076		1, 1903	"	Sioux City		
7087		1, 1903	"	Davenport	Maryland.	
7128		4, 1903	"	Des Moines	South Dakota.	
7194		August 4, 1903	"	Woodbine	Illinois.	
7176		October 6, 1903	"	Clarinda	Indiana.	
7193		October 6, 1903	"	Des Moines		
7206		October 6, 1903	By examination	Earlham	Des Moines.	
7229		2, 1903	Graduate	Sioux City	Nebraska.	
7237		1, 1903	By examination	Nashua		
7351		5, 1904	"	Hampton	Mason City.	
7359		4, 1904	"	Council Bluffs	Nebraska.	
7367		5, 1904	"	Mason City		
7408		7, 1904	"	Independence		
7417		June 7, 1904	Graduate	Siourney		
7447		1, 1904	By examination	Ellsworth		
7474		2, 1904	"	Volga City	Wisconsin.	

7476	August	2, 1904	By examination	Burt.	Illinois.
7476	August	2, 1904	Graduate	Keokuk	Des Moines.
7477	August	20, 1904	By examination	Doud, Lando	Riverton
7498	August	2, 1904	Graduate	Montour	Anamosa
7497	October	4, 1904	Graduate	Cincinnati	Shenandoah
7533	December	6, 1904	Graduate	Vinton	Shenandoah
7537	December	6, 1904	Graduate	Clarinda	Shenandoah
7550	February	7, 1905	By examination	Waterloo	Shenandoah
7558	February	7, 1905	By examination	Des Moines	Illinois
7564	June	19, 1905	Graduate	Des Moines	Illinois
7565	June	19, 1905	Graduate	Des Moines	Illinois
7570	August	1, 1905	As owner	Victor	Shenandoah
7572	July	5, 1880	As owner	Lynville	Shenandoah
7583	July	7, 1880	As owner	Lynville	Shenandoah
7614	December	19, 1881	By examination	What Cheer	Hedrick
7670	March	8, 1882	By examination	Hawarden	Hedrick
7681	January	20, 1885	By examination	Cherokee	Meriden
7687	October	2, 1893	By examination	Storm Lake	Meriden
7687	October	7, 1897	By examination	Essex	Meriden
6127	September	4, 1900	By examination	Waucoma	South Dakota
7631	February	7, 1905	By examination	Waucoma	South Dakota
123	June	4, 1880	As principal	Whiting	South Dakota
176	June	7, 1880	As principal	Whiting	South Dakota
182	June	2, 1880	As principal	Clarksville	South Dakota
200	June	12, 1880	As principal	Agency City	South Dakota
201	June	21, 1881	As principal	Des Moines	South Dakota
200	June	4, 1881	As principal	Bellevue	South Dakota
201	June	2, 1880	As principal	Andover	South Dakota
437	June	19, 1880	As principal	Burlington	South Dakota
476	June	6, 1880	As principal	Dallas Center	South Dakota
477	June	4, 1880	As principal	Davis City	South Dakota
503	June	7, 1880	As principal	Dubuque	South Dakota
1888	June	4, 1880	As principal	Mitchellville	South Dakota
1888	June	4, 1880	As principal	Keokuk	South Dakota
1888	June	2, 1880	As principal	Wilton Junction	South Dakota
1888	June	2, 1880	As principal	Washington	South Dakota
1888	June	5, 1880	As principal	Waterloo	South Dakota
1881	June	4, 1880	As principal	Winterset	South Dakota
1844	June	14, 1880	As principal	Bedford	South Dakota
1876	July	18, 1880	As principal	Smithland	South Dakota
1419	July	19, 1880	As principal	Muscataine	South Dakota
1441	July	17, 1880	As principal	Castalia	South Dakota
1531	September	14, 1880	As principal	Keokuk	South Dakota
1733	October	18, 1880	As principal	Sabula	South Dakota
1802	October	25, 1880	As principal	Allerton	South Dakota
1873	October	8, 1880	As principal	Avenport	South Dakota
1886	August	30, 1880	As principal	Orford	South Dakota
1886	July	25, 1880	As principal	Des Moines	South Dakota
1907	December	6, 1881	As principal	Des Moines	South Dakota
2005	April	22, 1881	As principal	Clarksville	South Dakota
2009	December	22, 1881	As principal	Clarksville	South Dakota

Robinson, H. A.
Reel, Z. T.
Reel, A. R.
Ray, E. G.

ABSTRACT—CONTINUED

Number of certificate.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
2386	February 8, 1892	By examination	Blairtown	Floyd.	
2387	February 6, 1892	"	J. Harrison.	Des Moines.	
2388	February 24, 1892	"	D. Thlap		
2389	March 27, 1892	"	Golfax		
2390	April 4, 1892	"	Belford.		
2391	September 14, 1892	"	Waukan.	Klemme.	
2392	October 19, 1892	"	Mr. Pleasant	Illinois.	
2393	March 20, 1893	"	Harper	Keota.	
2394	December 12, 1893	"	Oakland	Malvern	
2395	April 1, 1894	"	Burlington.		
2396	March 8, 1895	"	Des Moines		
2397	March 5, 1895	"	Milton		
2398	October 1, 1895	Graduate	Dunqu	Corydon.	
2399	December 1, 1895	By examination	Kot	Sioux City.	
2400	June 1, 1896	"	Chas.	Cedar Rapids	Nebraska.
2401	February 1, 1897	"	Panora		
2402	April 20, 1897	"	Greenbont Rock.	Woodbine.	
2403	December 21, 1897	"	Danlan	Winthrop.	
2404	May 17, 1897	"	Brooklyn		
2405	May 17, 1897	"	Leona		
2406	June 7, 1897	"	Lin		
2407	October 1, 1897	"	Parkersburg	Charter Oak.	
2408	October 4, 1897	"	Waukan	Waterloo.	
2409	October 12, 1897	"	Des Moines	Nashua	
2410	November 8, 1897	"	Atallan	Hamburg	
2411	September 18, 1898	"	Davenport	Des Moines.	In Illinois.
2412	October 1, 1898	"	Des Moines		
2413	December 14, 1898	"	Farv		
2414	January 14, 1899	"	Tipton		
2415	February 7, 1899	"	Sully	Clear Lake.	
2416	March 1, 1899	"	Correctionville	Springville.	
2417	July 16, 1899	"	Keokuk		
2418	November 19, 1899	"	Humboldt		
2419	January 12, 1900	"	Vad		
2420	January 24, 1901	"	Mr. Pleasant.		
2421	February 26, 1900	"	Woodbine		
2422	April 1, 1900	"	Iowa City	Eldora.	In Missouri.

3908	Boe, Charles P.	July	14, 1890	By examination.	Grinnel.	New Sharon.	In Minnesota.
3909	Roberts, William G.	December	2, 1890	"	Paducah.	North Dakota.	In Wisconsin.
3910	Reinert, Caspar.	February	3, 1891	"	S. Gouney.	Idaho.	In Nebraska.
3911		February	11, 1891	"	Fayette.	Rockwell City.	
4027		March	7, 1891	"	Claswell.	Idaho.	
4028		April	7, 1891	"	Albion.	Idaho.	
4029		June	20, 1891	"	Starchville.	Idaho.	
4030		August	4, 1891	"	Cushing.	Idaho.	
4031		September	1, 1891	"	Greeney.	Idaho.	
4117		September	28, 1891	"	Kearney.	Idaho.	
4202		March	11, 1892	"	Dubuque.	Idaho.	
4213		May	5, 1892	"	Rockwell.	Idaho.	
4239		May	24, 1892	"	Sierrita.	Idaho.	
4244		June	7, 1892	"	Indianola.	Idaho.	
4250		July	1, 1892	"	Fergusson.	Idaho.	
4270		July	9, 1892	"	Ottumwa.	Idaho.	
4283		October	25, 1892	"	Neola.	Idaho.	
4289		December	5, 1892	"	New Market.	Idaho.	
4297		January	31, 1893	"	Stuart.	Idaho.	
4304		March	7, 1893	"	Lake Park.	Idaho.	
4407		March	7, 1893	"	Idaho.	Idaho.	
4408		May	2, 1893	"	Ottumwa.	Idaho.	
4445		May	5, 1893	"	Des Moines.	Idaho.	
4487		July	5, 1893	"	Gladbrook.	Idaho.	
4550		December	5, 1893	"	Des Moines.	Idaho.	
4561		February	6, 1894	"	Tama.	Idaho.	
4599		March	5, 1894	"	Greenwood.	Idaho.	
4705		June	5, 1894	"	Brooklyn.	Idaho.	
4723		August	6, 1894	"	Clinton.	Idaho.	
4731		September	4, 1894	"	Samuel.	Idaho.	
4736		September	4, 1894	"	Hopkinton.	Idaho.	
4755		September	12, 1894	"	Columbus Junction.	Idaho.	
4773		September	12, 1894	"	Creston.	Idaho.	
4800		November	12, 1894	"	Victor.	Idaho.	
4802		January	14, 1895	"	Lake City.	Idaho.	
4832		January	23, 1895	"	Pierson.	Idaho.	
4891		May	7, 1895	"	Lehrville.	Idaho.	
4917		May	7, 1895	"	Idaho.	Idaho.	
4978		August	9, 1895	"	Wacon.	Idaho.	
4977		September	10, 1895	"	Prairie City.	Idaho.	
5021		January	7, 1896	"	Henderson.	Idaho.	
5043		March	3, 1896	"	Keota.	Idaho.	
5060		April	7, 1896	"	Glenwood.	Idaho.	
5200		June	2, 1896	"	Idaho.	Idaho.	
5220		February	2, 1897	"	Dubuque.	Idaho.	
5226		March	2, 1897	"	Keosauqua.	Idaho.	
5239		March	2, 1897	"	Clear Lake.	Idaho.	
5261		April	5, 1897	"	Elkader.	Idaho.	
5261		April	6, 1897	"	Waterloo.	Idaho.	

ABSTRACT—CONTINUED.

Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
5269 Royer, J. D.	May 5, 1897	By examination	Hampton	Coon Rapids.	North Dakota.
5271 Bormaine, Ernest	May 4, 1897	"	Grinnell	Popejoy.	
5272 Richards, W. W.	May 4, 1897	"	Cedar Rapids.	.....
5301 Rhea, W. F.	August 2, 1897	Graduate	Odebolt	.....
5357 Roth, C. P.	November 7, 1897	By examination	Oyerville.	North English.	North Dakota.
5364 Rust, E. G.	December 7, 1897	"	Pimphar.	.....
5369 Remington, O. E.	December 7, 1897	"	Bedford.	.....
5434 Robinson, C. E.	March 1, 1898	"	Forest City.	.....
5442 Rogers, A. M.	April 5, 1898	"	Paton.	North Dakota.
5444 Reed, N. F.	April 5, 1898	"	Eldon	Ottumwa.	
5463 Rodgers, J. G.	April 5, 1898	"	Montezuma.	.....
5475 Roen, J. A.	April 5, 1898	"	Marathon.	Jelly.	
5479 Robinson, C. W.	April 5, 1898	"	Waverly City.	North Dakota.
5480	April 7, 1898	"	Riceville.	.....
5490	June 2, 1898	"	Portsmouth	Steamboat Rock	
5500	August 4, 1898	"	Dubuque.	.....
5558	October 7, 1898	Graduate	Marble Rock.	Randall.	In Colorado.
5590	March 7, 1899	By examination	Wesley.	Oage.	
5641	September 5, 1899	Graduate	Ottumwa.	Emmesburg.	
5708	September 5, 1899	Graduate	Marques.	Daugherty.	
5824	November 9, 1899	"	Bancroft.	Whitemore.	In Colorado.
5836	November 9, 1899	"	Hampton.	Rhodes.	
5889	November 9, 1899	By examination	Fremont	.....
5904	January 2, 1900	"	Anthron.	.....
5905	January 6, 1900	Graduate	Carroll.	In Illinois.
5906	February 6, 1900	"	Davenport.	Illinois.	
6029	March 6, 1900	"	Siox City.	Victor.	
6084	June 5, 1900	"	Des Moines.	Dubuque.	
6085	June 5, 1900	By examination	Grinnell.	In Illinois.
6078	June 5, 1900	"	Batherville.	.....
6190	December 4, 1900	By examination	Allerton	.....
6191	December 4, 1900	"	Des Moines.	.....
6316	February 5, 1901	Graduate	Dubuque.	In Illinois.
6320	February 5, 1901	By examination	Carroll.	.....
6356	April 2, 1901	"	Bradyville.	Conway.	
6359	April 2, 1901	By examination	Lewis.	.....
6362	June 7, 1901	"	Des Moines.	Charles City.	

6018	6036	6038	6039	6040	6041	6042	6043	6044	6045	6046	6047	6048	6049	6050	6051	6052	6053	6054	6055	6056	6057	6058	6059	6060	6061	6062	6063	6064	6065	6066	6067	6068	6069	6070	6071	6072	6073	6074	6075	6076	6077	6078	6079	6080	6081	6082	6083	6084	6085	6086	6087	6088	6089	6090	6091	6092	6093	6094	6095	6096	6097	6098	6099	6100	6101	6102	6103	6104	6105	6106	6107	6108	6109	6110	6111	6112	6113	6114	6115	6116	6117	6118	6119	6120	6121	6122	6123	6124	6125	6126	6127	6128	6129	6130	6131	6132	6133	6134	6135	6136	6137	6138	6139	6140	6141	6142	6143	6144	6145	6146	6147	6148	6149	6150	6151	6152	6153	6154	6155	6156	6157	6158	6159	6160	6161	6162	6163	6164	6165	6166	6167	6168	6169	6170	6171	6172	6173	6174	6175	6176	6177	6178	6179	6180	6181	6182	6183	6184	6185	6186	6187	6188	6189	6190	6191	6192	6193	6194	6195	6196	6197	6198	6199	6200	6201	6202	6203	6204	6205	6206	6207	6208	6209	6210	6211	6212	6213	6214	6215	6216	6217	6218	6219	6220	6221	6222	6223	6224	6225	6226	6227	6228	6229	6230	6231	6232	6233	6234	6235	6236	6237	6238	6239	6240	6241	6242	6243	6244	6245	6246	6247	6248	6249	6250	6251	6252	6253	6254	6255	6256	6257	6258	6259	6260	6261	6262	6263	6264	6265	6266	6267	6268	6269	6270	6271	6272	6273	6274	6275	6276	6277	6278	6279	6280	6281	6282	6283	6284	6285	6286	6287	6288	6289	6290	6291	6292	6293	6294	6295	6296	6297	6298	6299	6300	6301	6302	6303	6304	6305	6306	6307	6308	6309	6310	6311	6312	6313	6314	6315	6316	6317	6318	6319	6320	6321	6322	6323	6324	6325	6326	6327	6328	6329	6330	6331	6332	6333	6334	6335	6336	6337	6338	6339	6340	6341	6342	6343	6344	6345	6346	6347	6348	6349	6350	6351	6352	6353	6354	6355	6356	6357	6358	6359	6360	6361	6362	6363	6364	6365	6366	6367	6368	6369	6370	6371	6372	6373	6374	6375	6376	6377	6378	6379	6380	6381	6382	6383	6384	6385	6386	6387	6388	6389	6390	6391	6392	6393	6394	6395	6396	6397	6398	6399	6400	6401	6402	6403	6404	6405	6406	6407	6408	6409	6410	6411	6412	6413	6414	6415	6416	6417	6418	6419	6420	6421	6422	6423	6424	6425	6426	6427	6428	6429	6430	6431	6432	6433	6434	6435	6436	6437	6438	6439	6440	6441	6442	6443	6444	6445	6446	6447	6448	6449	6450	6451	6452	6453	6454	6455	6456	6457	6458	6459	6460	6461	6462	6463	6464	6465	6466	6467	6468	6469	6470	6471	6472	6473	6474	6475	6476	6477	6478	6479	6480	6481	6482	6483	6484	6485	6486	6487	6488	6489	6490	6491	6492	6493	6494	6495	6496	6497	6498	6499	6500	6501	6502	6503	6504	6505	6506	6507	6508	6509	6510	6511	6512	6513	6514	6515	6516	6517	6518	6519	6520	6521	6522	6523	6524	6525	6526	6527	6528	6529	6530	6531	6532	6533	6534	6535	6536	6537	6538	6539	6540	6541	6542	6543	6544	6545	6546	6547	6548	6549	6550	6551	6552	6553	6554	6555	6556	6557	6558	6559	6560	6561	6562	6563	6564	6565	6566	6567	6568	6569	6570	6571	6572	6573	6574	6575	6576	6577	6578	6579	6580	6581	6582	6583	6584	6585	6586	6587	6588	6589	6590	6591	6592	6593	6594	6595	6596	6597	6598	6599	6600	6601	6602	6603	6604	6605	6606	6607	6608	6609	6610	6611	6612	6613	6614	6615	6616	6617	6618	6619	6620	6621	6622	6623	6624	6625	6626	6627	6628	6629	6630	6631	6632	6633	6634	6635	6636	6637	6638	6639	6640	6641	6642	6643	6644	6645	6646	6647	6648	6649	6650	6651	6652	6653	6654	6655	6656	6657	6658	6659	6660	6661	6662	6663	6664	6665	6666	6667	6668	6669	6670	6671	6672	6673	6674	6675	6676	6677	6678	6679	6680	6681	6682	6683	6684	6685	6686	6687	6688	6689	6690	6691	6692	6693	6694	6695	6696	6697	6698	6699	6700	6701	6702	6703	6704	6705	6706	6707	6708	6709	6710	6711	6712	6713	6714	6715	6716	6717	6718	6719	6720	6721	6722	6723	6724	6725	6726	6727	6728	6729	6730	6731	6732	6733	6734	6735	6736	6737	6738	6739	6740	6741	6742	6743	6744	6745	6746	6747	6748	6749	6750	6751	6752	6753	6754	6755	6756	6757	6758	6759	6760	6761	6762	6763	6764	6765	6766	6767	6768	6769	6770	6771	6772	6773	6774	6775	6776	6777	6778	6779	6780	6781	6782	6783	6784	6785	6786	6787	6788	6789	6790	6791	6792	6793	6794	6795	6796	6797	6798	6799	6800	6801	6802	6803	6804	6805	6806	6807	6808	6809	6810	6811	6812	6813	6814	6815	6816	6817	6818	6819	6820	6821	6822	6823	6824	6825	6826	6827	6828	6829	6830	6831	6832	6833	6834	6835	6836	6837	6838	6839	6840	6841	6842	6843	6844	6845	6846	6847	6848	6849	6850	6851	6852	6853	6854	6855	6856	6857	6858	6859	6860	6861	6862	6863	6864	6865	6866	6867	6868	6869	6870	6871	6872	6873	6874	6875	6876	6877	6878	6879	6880	6881	6882	6883	6884	6885	6886	6887	6888	6889	6890	6891	6892	6893	6894	6895	6896	6897	6898	6899	6900	6901	6902	6903	6904	6905	6906	6907	6908	6909	6910	6911	6912	6913	6914	6915	6916	6917	6918	6919	6920	6921	6922	6923	6924	6925	6926	6927	6928	6929	6930	6931	6932	6933	6934	6935	6936	6937	6938	6939	6940	6941	6942	6943	6944	6945	6946	6947	6948	6949	6950	6951	6952	6953	6954	6955	6956	6957	6958	6959	6960	6961	6962	6963	6964	6965	6966	6967	6968	6969	6970	6971	6972	6973	6974	6975	6976	6977	6978	6979	6980	6981	6982	6983	6984	6985	6986	6987	6988	6989	6990	6991	6992	6993	6994	6995	6996	6997	6998	6999	7000	7001	7002	7003	7004	7005	7006	7007	7008	7009	7010	7011	7012	7013	7014	7015	7016	7017	7018	7019	7020	7021	7022	7023	7024	7025	7026	7027	7028	7029	7030	7031	7032	7033	7034	7035	7036	7037	7038	7039	7040	7041	7042	7043	7044	7045	7046	7047	7048	7049	7050	7051	7052	7053	7054	7055	7056	7057	7058	7059	7060	7061	7062	7063	7064	7065	7066	7067	7068	7069	7070	7071	7072	7073	7074	7075	7076	7077	7078	7079	7080	7081	7082	7083	7084	7085	7086	7087	7088	7089	7090	7091	7092	7093	7094	7095	7096	7097	7098	7099	7100	7101	7102	7103	7104	7105	7106	7107	7108	7109	7110	7111	7112	7113	7114	7115	7116	7117	7118	7119	7120	7121	7122	7123	7124	7125	7126	7127	7128	7129	7130	7131	7132	7133	7134	7135	7136	7137	7138	7139	7140	7141	7142	7143	7144	7145	7146	7147	7148	7149	7150	7151	7152	7153	7154	7155	7156	7157	7158	7159	7160	7161	7162	7163	7164	7165	7166	7167	7168	7169	7170	7171	7172	7173	7174	7175	7176	7177	7178	7179	7180	7181	7182	7183	7184	7185	7186	7187	7188	7189	7190	7191	7192	7193	7194	7195	7196	7197	7198	7199	7200	7201	7202	7203	7204	7205	7206	7207	7208	7209	7210	7211	7212	7213	7214	7215	7216	7217	7218	7219	7220	7221	7222	7223	7224	7225	7226	7227	7228	7229	7230	7231	7232	7233	7234	7235	7236	7237	7238	7239	7240	7241	7242	7243	7244	7245	7246	7247	7248	7249	7250	7251	7252	7253	7254	7255	7256	7257	7258	7259	7260	7261	7262	7263	7264	7265	7266	7267	7268	7269	7270	7271	7272	7273	7274	7275	7276	7277	7278	7279	7280	7281	7282	7283	7284	7285	7286	7287	7288	7289	7290	7291	7292	7293	7294	7295	7296	7297	7298	7299	7300	7301	7302	7303	7304	7305	7306	7307	7308	7309	7310	7311	7312	7313	7314	7315	7316	7317	7318	7319	7320	7321	7322	7323	7324	7325	7326	7327	7328	7329	7330	7331	7332	7333	7334	7335	7336	7337	7338	7339	7340	7341	7342	7343	7344	7345	7346	7347	7348	7349	7350	7351	7352	7353	7354	7355	7356	7357	7358	7359	7360	7361	7362	7363	7364	7365	7366	7367	7368	7369	7370	7371	7372	7373	7374	7375	7376	7377	7378	7379	7380	7381	7382	7383	7384	7385	7386	7387	7388	7389	7390	7391	7392	7393	7394	7395	7396	7397	7398	7399	740
------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	-----

ABSTRACT—CONTINUED.

Number of certificate.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
7555	Rathgen, H. G.	December 6, 1904	By examination	Ida Grove.	Battle Creek, Missouri.	
7572	Roberts, F. M.	February 7, 1905	Graduate	Osaka, Iowa		
7605	Robertson, H. A.	April 4, 1905	By examination	Union Junction.		
7621	Reinhardt, A. J.	April 22, 1905	Graduate	Marling.		
7657	Rugg, Roger.	June 6, 1905		Waterloo		
7646	Russell, J. E.	June 6, 1905	By examination	Oak and	Laurens.	
7666	Roche, C. D.	June 19, 1905	Graduate.	Emmeburg		
7710	Roby, Fred.	July 12, 1905		Rockwell City.	Silver City.	
7720	Reines, R. V.	August 1, 1905		Des Moines		
7731	Reals, F. A.	August 1, 1905		Des Moines.		
7730	Reber, Dorcas.	August 1, 1905		Redfield		
7752	Rice, A. H.	August 1, 1905	By examination	Des Moines.		
87		August 9, 1880	As owner.	Paton	Boone.	
187		June 4, 1880		Mr Pleasant		
190		June 11, 1880		Burlington		
219		June 16, 1880		West Mitchell.		
273		June 8, 1880		Shell Rock.	Red Oak.	
276		June 10, 1880	As assistant.	Anamona		
277		June 10, 1880		Anamona		
285		June 2, 1880	As owner	Clarence.		
390		June 18, 1880		Cammar.	West Union	
447		June 8, 1880		Davenport.		
490		June 7, 1880		Dexter		
466		June 9, 1880		Dunlap.		
475		June 8, 1880	As assistant.	Dunlap.		
501		June 8, 1880	As owner.	Malvern	Tabor.	
513		June 4, 1880		Norway.		
526		June 10, 1880		Corydon		
554		June 21, 1880		Emerson		
651		June 8, 1880		Independence.		
680		June 8, 1880	As assistant	Kennett.		
731		June 28, 1880	As owner.	Lowa City		
734		June 16, 1880		East Des Moines.		
750		July 1, 1880	As assistant	Fort Madison.		
764		June 6, 1880	As owner.	Lynn.		
853		June 2, 1880		Missouri Valley		
860		June 7, 1880		Milton.		

919	Smith, Henry C	June	22, 1880	As assistant	Manchester.		
975	Smith, John B.	July	6, 1880	As owner	Kellogg.		
1038	Steadt, Godfrey	June	9, 1880	"	Postville.		
1084		June	8, 1880	"	Russell		
1110		June	24, 1880	"	Burlington.		
1119		July	8, 1880	"	Chariton.		
1128		June	7, 1880	As assistant	Des Moines.		
1139		July	10, 1880	"	Des Moines.		
1141		June	30, 1880	As owner	Fontanella.		
1249		June	4, 1880	"	Toledo.		
1252		June	18, 1880	"	Tama City.		
1476		July	17, 1880	"	Fort Madison.	Des Moines.	
1635		August	10, 1880	As assistant	Lenox.		
1682		August	16, 1880	As owner	Mondamin.	Magnolia.	
1686		August	30, 1880	By examination	Des Moines.		
1712		August	2, 1880	"	Des Moines.		
1720		July	30, 1880	As owner	Ottumwa.		
1797		August	6, 1880	By examination	Amasa.		
1838		July	30, 1880	"	Vinton	Des Moines.	
1933		November	9, 1880	"	Griswold	Cumberland.	
1940		December	15, 1880	"	Fort Madison.		
2015		March	2, 1881	"	Altoona.		
2034		March	17, 1881	"	Hamburg	Hastings.	
2070		January	10, 1881	"	Iowa Falls.		
2083		April	6, 1881	"	Primrose City.		
2127		May	17, 1881	"	Sigourney.		
2129		May	23, 1881	"	Wilo	Des Moines.	
2140		June	23, 1881	"	Carlton	Oiebolt.	
2142		May	24, 1881	"	Arcadia	Smithland.	
2144		May	27, 1881	"	Griswold	Denison.	
2196		May	27, 1881	"	Fairfield		
2237		August	12, 1881	"	Burlington	Clinton.	
2256		September	5, 1881	"	Gladbrook	Waterloo.	
2302		December	3, 1881	"	Fort Dodge	Manning.	
2302		December	31, 1881	"	Sioux Rapids	Fort Dodge.	
2381		March	28, 1882	"	Bedford		
2385		April	1, 1882	"	Clarinda		
2419		April	27, 1882	"	Lura	Villisca.	
2484		May	24, 1882	"	Anamosa.		
2487		May	24, 1882	"	Elgin.		
2514		July	24, 1882	"	Scranton	Stuart.	
2590		March	20, 1883	"	Parkersburg	Eagle Grove.	
2591		March	21, 1883	"	Brooklyn		
2613		April	3, 1883	"	Marshalltown.		
2617		April	17, 1883	"	Hedrick	Keokuk.	
2638		June	5, 1883	"	Monroe.		
2687	Shrader, J. A.	September	12, 1883	"	Orant	Walcott.	
2688	Schumacher, H.	October	2, 1883	"	Lytle City	Parnell.	
2694	Shnell, T. J.	November	6, 1883	"	Lucas	Minn.	
2718	Stover, Emery E.	January	15, 1884	"			

In Colorado.

In Colorado.

ABSTRACT—CONTINUED.

Number of copy.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
2748	Stewart, William J.	May 14, 1884	By examination	Grimes.		
2750	Stemets, John.	May 20, 1884	"	Emmetsburg.		
2753	Simcoe, J. L.	May 26, 1884	"	Bedfield.	Adel.	
2774	Sifford, Charles.	June 28, 1884	"	Wall Lake.	South Dakota.	
2814	Simons, A. O.	November 13, 1884	"	Ida Grove.		
2844	Schmidt, Louis.	March 10, 1885	"	Des Moines.		
2882	Shelton, Alvin H.	May 20, 1885	"	Pulaski.	Bloomfield.	
2888	Stanton John H.	May 27, 1885	"	Chariton.	(Deep River only.)	
2894		June 18, 1885	"	Deep River.		
2897		July 22, 1885	Graduate	Davenport.		
2909		July 7, 1885	By examination	J. sup.		
2917		July 31, 1885	"	Clare.		
2921		September 8, 1885	"	Ottumwa.	Agency City.	
2954		February 18, 1886	"	Des Moines.		
2977		February 2, 1886	"	Greenfield.	Oreston	
2988	O.	March 4, 1886	"	Iowa City.		
2995		March 16, 1886	"	Alden.	Independence.	
3002		May 4, 1886	"	Wellman.	Centerville.	
3014		June 15, 1886	"	Ida Grove.		
3042		August 18, 1886	Graduate	Sioux City.		
3044		August 30, 1886	"	Osgo.		
3056		July 27, 1886	By examination	Sibley.		
3105		December 7, 1886	"	Washington.	Odell.	
3123		February 1, 1887	"	Carbon.		
3125		March 8, 1887	"	Macedonia.		
3137		February 9, 1887	"	Hudson.		
3145		March 1, 1887	"	Massena.		
3151		March 9, 1887	"	Marengo.		
3175		March 26, 1887	"	Glidden.		
3205		April 4, 1887	"	Cedar Rapids.		
3217	L.	April 8, 1887	"	Garwin.		
3236		May 8, 1887	"	Carroll.		
3240	H.	May 17, 1887	"	Panbuque.		
3259		May 31, 1887	"	Sioux City.	Marion.	
3274		May 31, 1887	"	Keewick.	Valley Junction.	
3296	Smith, Henry.	July 8, 1887	"	New Sharon.	Quincy.	
3304	Bedwick, W. L.	August 16, 1887	"	Sioux City.		
3306		August 31, 1887	Graduate			In Minnesota.

3815	Smith, Fred J.	September	8, 1887	By examination	Alton.	Pocahontas.	In Washington.
3820	Starr, John W.	September	26, 1887	"	Fairfield.	Washington.	
3859	Stewart, Charles W.	December	6, 1887	"	Crawfordville.	Ohio.	
3908	Smith, Albert E.	January	25, 1888	"	Ocheyedan.	Des Moines.	
3870	Sturges, N. F.	January	30, 1888	"	Carroll.		
3892	Stewart, David T.	February	21, 1888	"	Hartley.		
3897	Stevens, John L.	February	2, 1888	"	Iowa City.		
3932	Stoll, W. W.	April	8, 1888	"	Arcadia.	Fontanella.	
3936	Sanford, H. Clay	April	10, 1888	"	Belle Plaine.	Chicago, Ill.	
3942	Schultz, Louis C.	April	17, 1888	"	McGregor.	Boone.	
3963	Saudell, C. A.	May	23, 1888	"	McGregor.	Waterloo.	
3938	Saterlee, Gale	September	5, 1888	"	Boone.		
3984		September	18, 1888	"	Waterloo.		
3940		October	4, 1888	"	Ottumwa.		
3938		November	6, 1888	"	Masena.	Fontanella.	
3954		November	14, 1888	"	Walnut.	Connell Ruffs.	
3958		December	4, 1888	"	Madrid.		
3977		January	7, 1889	"	Beaman.	Havlock.	
3901		February	19, 1889	"	Marshalltown.	Eagle Grove.	
3957		May	28, 1889	"	Des Moines.	Winteret.	
3953		June	18, 1889	"	Boone.		
3744		October	1, 1889	"	Grimes.		
3765		October	15, 1889	"	Red Oak.		
3705		November	9, 1889	"	Eagle Grove.		
3766		November	19, 1889	Graduate	Keokuk.		
3728		January	7, 1890	By examination	Toledo.	Mason City.	
3808		January	28, 1890	"	Cherokee.		Utah.
3835		January	31, 1890	"	Iowa City.	Marshalltown.	
3869		February	27, 1890	"	Vinton.	Storm Lake.	
3891		April	1, 1890	"	Chester Center.	Gridwood.	
3908		May	8, 1890	"	Minden.		Washington.
3910		June	9, 1890	"	Dallas Center.		
3927		July	15, 1890	"	Adel.	Osceola.	
3929		September	2, 1890	"	Odebolt.		
3938		September	9, 1890	"	Sumner.	Laurel.	
3956		September	5, 1890	"	Con-ville.	Cherokee.	
3967		December	2, 1890	"	Anthony.	Des Moines.	
3976		December	8, 1890	"	Altoona.		Oregon.
3992		January	13, 1891	"	Ames.		
4008		February	14, 1891	"	Des Moines.	Nebraska.	
4028		March	7, 1891	"	Battle Creek.	North Dakota.	
4048		April	7, 1891	"	Marathon.		
4075		May	5, 1891	"	Leon.		
4076		June	9, 1891	"	Des Moines.	Des Moines.	
4079		June	9, 1891	"	Tabor.	Idaho.	
4102		August	18, 1891	"	Castana.	Nemaha.	South Dakota.
4104	Shaw, William S.	August	18, 1891	Graduate	Centerville.		
4109	Scott, Walter E.	August	21, 1891	By examination	Adel.		
4127	Smith, J. E.	August	25, 1891	"	Adel.	Sarlinham.	
	Strunk, H. J.	October	10, 1891	"	Harling.	Templeton.	

ABSTRACT—CONTINUED.

Number of case	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
4141	Gartori, Anton.	November 13, 1891	By examination.	Le Mars.		
4158	Samuelson, J. A.	December 1, 1891	"	S. aux City.		
4161	Shakespeare, Geo.	January 6, 1892	"	Center City.	Tama.	
4162	Stone, Charles F. M.	January 6, 1892	"	Marshalltown.		
4166	Schafer, R. R.	February 28, 1892	"	St. Madison.		
4172	Sherman, D. O.	February 2, 1892	"	Washington.		
4175	Sigworth, D. B.	February 2, 1892	"	Anamosa.		
4218	Sherman, M. E.	April 6, 1892	"	Rockwell City.	Des Moines	
4218	Swarm, C. P.	April 15, 1892	"	Oakland.		
4236	Smith, J. O.	May 18, 1892	"	Woolstock.		
4237	Salmon, G. A.	May 14, 1892	"	Columbus Junction.		
4247	"	June 21, 1892	"	Minburn		
4250	"	June 21, 1892	Graduate	Peoria, Ill.	St. Charles, Mo.	
4252	"	July 5, 1892	By examination	Corning.		
4255	"	July 6, 1892	"	Des Moines.		
4267	"	July 5, 1892	By examination	Alnsworth.		
4290	"	August 9, 1892	Graduate	Des Moines.	Afton.	
4293	"	August 19, 1892	By examination	Monticello		
4301	A.	September 6, 1892	"	Beile Plaine.	Montour.	
4304	L.	September 13, 1892	"	Mason City.	Batavia.	
4309	D.	September 20, 1892	"	Elkport		
4315	"	October 4, 1892	Graduate	Arcadia	Valley Junction.	In Kansas.
4331	C.	November 30, 1892	By examination	Cantonville.		
4343	"	December 6, 1892	"	Qu'neque.		
4365	"	January 14, 1893	"	Casey.		
4367	"	January 14, 1893	"	Bayard.	Dawson.	
4394	"	January 16, 1893	Graduate	Decorah	Tracer.	
4406	"	January 2, 1893	By examination	Marshalltown.	State Center.	
4411	"	March 19, 1893	"	Sidney	Hamburg.	
4417	"	March 8, 1893	"	Wonda	Superior.	
4420	"	March 8, 1893	"	Shellburg	Cedar Rapids.	
4426	"	April 4, 1893	"	Kearnaqua	New London.	
4437	"	April 11, 1893	"	Hancock.		
4467	"	May 2, 1893	"	Walker.		
4480	Ham	May 30, 1893	"	Jolley		In Illinois.
4476	"	June 16, 1893	Graduate	Williams		

4514	September	5, 1895	By examination	Fairfield.	Council Bluffs.	In Idaho.
4515	September	5, 1895	"	Jefferson.	Oceola.	"
4516	September	5, 1895	"	Atlantic	"	"
4517	October	8, 1895	"	Murray	"	"
4518	October	31, 1895	"	Glenwood	"	"
4519	October	7, 1895	"	Kingale	Sac City.	"
4520	November	7, 1895	"	Moravia	Sigourney.	"
4521	December	5, 1895	"	Stanton	Oile.	"
4522	December	19, 1895	"	D & Moines	Knowlton.	"
4523	December	19, 1895	"	Hubbard	"	"
4524	February	6, 1894	"	Waterloo	Traer.	"
4525	February	6, 1894	"	Le Mars	Alton.	"
4526	April	8, 1894	"	Earville	"	"
4527	April	13, 1894	"	Burlington	"	"
4528	June	12, 1895	"	Bancroft	Burlington.	"
4529	June	6, 1894	"	Le Mars	"	"
4530	June	5, 1894	"	Rensselaer	Des Moines.	"
4531	June	5, 1894	"	Belle Plaine	"	"
4532	June	5, 1894	"	Marble Rock	"	"
4533	July	8, 1894	"	Williams	"	"
4534	July	25, 1894	"	Monticello	Algona.	"
4535	September	4, 1894	"	Lake Mills	Minnesota.	"
4536	September	4, 1894	"	Garrison	Charles City.	"
4537	September	12, 1894	"	Meriden	Webster City.	"
4538	September	4, 1894	"	Webster	Eddyville.	"
4539	March	8, 1895	"	Elbertson	"	"
4540	August	24, 1894	"	Stout City	"	"
4541	December	4, 1894	"	Ft. Madison	Burlington.	"
4542	December	8, 1894	"	West Side	Latimer.	"
4543	December	22, 1894	"	Stout City	"	"
4544	January	1, 1895	Graduate	Gladbrook	Waverly.	"
4545	December	12, 1895	By examination	Waterloo	Tripoli.	"
4546	February	5, 1895	"	Muscatine	Sweetland.	"
4547	February	5, 1895	"	Sac City	Washington.	"
4548	March	5, 1895	"	Council Bluffs	"	"
4549	March	5, 1895	"	Dexter	Leon.	"
4550	March	7, 1895	"	Fort Madison	"	"
4551	March	7, 1895	"	Cedar Rapids	Gresco.	"
4552	March	7, 1895	"	Des Moines	Oakland.	"
4553	March	7, 1895	"	Rolfe	Noville.	"
4554	March	7, 1895	"	Odebolt	Stout Rapids.	"
4555	March	7, 1895	"	Bradgate	Rock Rapids.	"
4556	August	15, 1895	Graduate	Eagle Grove	"	"
4557	August	6, 1895	By examination	Stout Rapids	"	"
4558	August	6, 1895	"	Stout City	"	"
4559	August	6, 1895	"	Waverly	"	"
4560	August	6, 1895	"	Des Moines	"	"
4561	August	12, 1895	"	Montrose	"	"
4562	November	8, 1895	"	Calamus	"	"
4563	December	8, 1895	"	Manley	"	"
4564	December	17, 1895	"	"	"	"

ABSTRACT—CONTINUED.

Number of certificate.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
4971	Smith, W. H.	January 7, 1896	By examination	Greenfield	.....	In Kansas.
4972	Spahr, T. E.	January 7, 1896	"	Mason City	Perry.	
4986	Speeding, Floyd	February 4, 1896	"	Britt	Mitchell	
4987	Smith, H. M.	February 4, 1896	"	Churdan	Glidden.	
5000	Sorensen, Hans	February 7, 1896	"	Marshalltown	Eagle Grove.	In Minnesota.
5001	Shipman, E. D.	February 7, 1896	"	Wapello	.....
5011	Smith, L. B.	March 8, 1896	"	Gladbrook	.....
5018	Snook, J. F.	March 11, 1896	Graduate	Prairie City	Ames.	
5023	Steely, J. W.	March 17, 1896	By examination	Waterloo	Eldora.	
5061	Smuts, W. A.	April 7, 1896	"	Hillsboro	.....
5046	Swallman, H. U.	April 7, 1896	"	Hubbard	Belle Plaine.	
5055	Shaffner, W. W.	April 21, 1896	"	Sanborn	Barper.	
5075	Steely, J. H.	May 5, 1896	"	Waterloo	Eldora.	
5076	Sloan, J. A.	May 5, 1896	"	Eldon	Leando.	
5077	Simpson, G. A.	May 5, 1896	"	Eldora	Swes City.	In Colorado.
5078	Sornsen, A. I.	May 5, 1896	"	Decorah	.....
5103	Shuttleworth, E. H.	May 5, 1896	"	Nevada	Grass.	
5104	Story, O. F.	July 7, 1896	"	Stuart	.....	In California.
5125	Starr, G. A.	July 4, 1896	"	Eldora	Red Oak.	
5143	.....	August 1, 1896	"	Cumberland	Perry.	
5145	.....	September 1, 1896	"	Garner	.....
5153	.....	October 6, 1896	"	Cherokee	.....
5189	.....	November 10, 1896	"	Modale	.....
5190	.....	January 7, 1896	"	Forest City	Haaper.	
5191	.....	April 1, 1896	"	Massena	.....
5194	.....	February 2, 1897	"	Pleasantville	Etherville.	
5197	.....	February 2, 1897	"	Kiceville	.....
5199	.....	February 2, 1897	"	Sheldon	.....
5206	.....	February 2, 1897	"	Afton	.....
5222	.....	March 2, 1897	"	Sheldon	.....
5244	.....	April 6, 1897	"	Des Moines	.....
5245	.....	April 6, 1897	"	Waukon	.....	In Illinois.
5254	.....	April 6, 1897	"	McGregor	Algonia.	
5259	.....	April 6, 1897	"	Maloy	Dalpos.	
5261	.....	May 4, 1897	"	Victor	.....
5262	.....	May 4, 1897	"	Cumberland	.....
5278	.....	June 1, 1897	"	Randolph	Farragut.	

5896	Bohen, L. O.	July	6, 1897	By examination	Stacyville	Wealey.	In South Dakota
5897	Spain, E. T.	September	7, 1897	Graduate	Des Moines	Enterprises.	
5898	Spears, J. C.	October	8, 1897	By examination	Vinton	Des Moines.	
5899	Sernble, A. J.	November	4, 1897	"	Akron		
5900	Schnitz, O. S.	November	2, 1897	"	Lake Park		
5901	Shellsberger, E. P.	February	9, 1898	"	Columbus Junction.		
5902	Skelly, P. B.	March	1, 1898	"	Lost Nation.		
5903	Storey, G. W.	March	1, 1898	"	Manchester.		
5904	Shiley, G. F.	March	1, 1898	"	Missouri Valley.		
5905	Shaw, F. W.	April	1, 1898	"	Monroe.		
5906	Sylvester, V. W.	April	5, 1898	"	Hattie Creek.		
5907	Stiles, W. H.	April	5, 1898	By examination	Garden Grove.		In Nebraska.
5908	Scott, R. W.	April	5, 1898	"	Lamoni		
5909	Sigworth, M. P., Jr.	April	5, 1898	"	Anamosa.	Gottensberg.	
5910	Schroeder, R. E.	April	5, 1898	"	Garnaville.		
5911	Storch, H. C.	June	7, 1898	"	Sheffield.		In Illinois.
5912	Smith, E. P.	June	7, 1898	"	Lime Springs		
5913	Shields, J. S.	April	7, 1898	"	Decorah City		
5914	Strickel, J. P.	July	27, 1898	Graduate	Waterloo.		
5915		July	27, 1898	"	Oceola		In Illinois.
5916		July	27, 1898	By examination	Ames		In Nebraska.
5917		August	8, 1898	Graduate	Grand Junction	Maxwell.	
5918		August	8, 1898	"	Des Moines		In Colorado.
5919		August	8, 1898	"	Forest City		In Wisconsin.
5920		August	8, 1898	"	Corning		In Illinois.
5921		August	8, 1898	"	Mt Pleasant		
5922	Stevensson, Archie	September	4, 1898	By examination	Madrid	Dickens.	
5923	Smith, F. C.	October	4, 1898	Graduate	Des Moines	Trippell.	
5924	Snyder, C. J.	November	1, 1898	"	Bancroft	Owaga.	
5925		December	6, 1898	"	Aurelia		
5926		December	6, 1898	By examination	Traer	Armstrong.	
5927		December	6, 1898	"	Eldora		
5928		December	6, 1898	"	Hayward	Manilla.	
5929		December	6, 1898	"	Montour		
5930		January	8, 1899	"	Bancroft	Burt.	
5931		January	8, 1899	"	Columbus Junction.	Colfax.	
5932		March	7, 1899	Graduate	Elgin.		
5933		March	7, 1899	By examination	Onawa.		
5934		March	7, 1899	"	Corydon.		
5935		March	7, 1899	Graduate	Des Moines	Granger.	
5936		March	7, 1899	"	Newton	Fremont.	In Illinois.
5937		April	4, 1899	"	Iowa City		In Missouri.
5938		April	4, 1899	By examination	Des Moines		In N. Dakota.
5939		April	4, 1899	Graduate	Morning Sun		
5940		May	6, 1899	"	Marble Rock		
5941		May	6, 1899	"	Des Moines		
5942		May	6, 1899	By examination	Manly		
5943		May	6, 1899	Graduate	Tama.		
5944		July	6, 1899	"	Sioux City		In N. Dakota.
5945		July	6, 1899	"	Dubuque		In Illinois.

ABSTRACT—CONTINUED.

Number of certificate	Name.	Date of Registration	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
5786	August 1, 1899	By examination.....	Manning.	Anamosa.	In Nebraska.
5789	September 5, 1899	Graduate	Perry	Burnside.	
5807	September 5, 1899	By examination.....	Dubuque	De Soto.	
5814	September 5, 1899	By examination.....	Lake Mills .....	.....
5815	September 5, 1899	By examination.....	Ottumwa .....	.....
5849	November 2, 1899	Graduate	Des Moines .....	.....
5857	November 9, 1899	By examination.....	Des Moines .....	.....
5861	November 9, 1899	By examination.....	Pella .....	.....
5870	December 3, 1899	Graduate	Des Moines	Sheldon.	
5878	December 5, 1899	By examination.....	Fort Dodge .....	.....
5877	December 8, 1899	By examination.....	Villaca	Red Oak.	
5889	January 2, 1900	Graduate	Des Moines	Maxburg.	
5896	January 2, 1900	By examination.....	Greco	Waukon.	
5900	February 6, 1900	By examination.....	Wyoming	Woodward.	
5925	February 6, 1900	By examination.....	Audubon .....	.....
5941	March 6, 1900	Graduate.....	Gravety .....	.....	Nebraska.
5956	March 6, 1900	By examination.....	Beacon	Eldora.	
5959	H	April 3, 1900	By examination.....	West Point	Ft. Madison.	
5968	April 3, 1900	By examination.....	Montour	St. City.	
5996	May 1, 1900	By examination.....	Pilot Mound	Runnells.	
6008	May 1, 1900	By examination.....	Toledo	Center Point.	
6006	May 1, 1900	By examination.....	Spencer	Odebolt.	
6014	May 1, 1900	By examination.....	Cedar Falls	Fort Dodge.	
6018	May 1, 1900	By examination.....	Carroll	Earling.	
6019	May 1, 1900	By examination.....	Kingsley .....	.....	California.
6024	May 6, 1900	By examination.....	Des Moines .....	.....	Minnesota.
6032	June 6, 1900	By examination.....	Des Moines .....	.....
6051	June 6, 1900	By examination.....	Des Moines .....	.....
6056	July 4, 1900	By examination.....	Ms Vernon	Cedar Rapids.	Montana.
6064	July 4, 1900	By examination.....	Etherville .....	.....
6066	July 4, 1900	By examination.....	Clearfield .....	.....
6068	July 4, 1900	By examination.....	Bigourney	Oaklaoca.	Laramie, Wyo.
6069	August 7, 1900	By examination.....	Des Moines .....	.....
6101	August 7, 1900	By examination.....	Keokuk .....	.....
6102	August 7, 1900	By examination.....	Hawkeya	Rock Rapids.	Illinois.
6107	August 7, 1900	By examination.....	Des Moines .....	.....
6109	August 7, 1900	By examination.....	West Union .....	.....

[illegible]

ABSTRACT—CONTINUED.

Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
Shull, H. W.	1, 1902	Graduate	Iowa City	Waterloo.	
Stotts, O. D.	1, 1902	By examination.	Yale.		
Schnuneman, B. W.	1, 1902	"	Des Moines.		
Sutton, R. R.	22, 1902	Graduate	Shenandoah.	Manila.	Indiana.
Sauerman, H. A.	5, 1902	"	Des Moines.	Des Moines.	
Shenck, O. W.	5, 1902	"	Newton.		
Shusta, A. B.	5, 1902	"	Waterloo.		
Stahl, E. E.	5, 1902	"	Bancroft.	Swes City.	
Smith, O. C.	8, 1902	By examination.	Clarksville.	Des Moines.	
Sammons, V. M.	8, 1902	Graduate	Albia.		
Steglein, Chas. A.	8, 1902	By examination.	Des Moines.	Chapin.	
Songster, J. W.	20, 1902	Graduate	Council Bluffs.	"	In Nebraska.
Sager, A. D.	8, 1902	By examination.	Des Moines.	"	In Oklahoma.
Shipley, Geo. U.	8, 1902	"	Dexter.	Perry.	
Sherman, Fort	8, 1902	"	Sheldon.		
Smith, A. N.	8, 1902	"	Washington.	Des Moines.	
Smith, A. N.	8, 1901	"	Winterset.		
Smith, A. N.	8, 1901	"	George.	Garden City.	
Shreve, B. F.	8, 1902	"	St. Charles.		
Schnitz, A. F.	8, 1902	"	Renss.	Dundee.	
	5, 1902	Graduate.	Strawberry Point.	Elkhart.	
	5, 1902	"	Mitchellville.	Hawarden.	
	5, 1902	"	Paulina.	Mechanicsville.	
	5, 1902	"	Dayton.		
	5, 1902	"	Des Moines.		
	5, 1902	"	Clinton.	Cedar Rapids.	
	5, 1902	By examination.	Shellsburg.	Charter Oak.	
	21, 1902	Graduate.	Des Moines.		
	21, 1902	"	Des Moines.	Galt.	South Dakota.
	7, 1902	"	Des Moines.		
	7, 1902	"	Davenport.		In Wisconsin.
	7, 1902	"	Decorah.		In Illinois.
	7, 1902	"	Ackley.		In S. Dakota.
	7, 1902	"	Des Moines.	Belmond.	
	7, 1902	"	Indianola.	Miller.	
	7, 1902	By examination.	Storm Lake.	Indiana.	
	7, 1902	"	Marion.		

[illegible]

ABSTRACT—CONTINUED.

Number of certificate.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
7315	Scroggs, J. G.	February 2, 1904	By examination.	Clarinda.	Hillsboro.	
7316	Scott, O. L.	February 2, 1904	"	Ft. Madison.		
7317	Stringfellow, L. H.	February 2, 1904	"	Des Moines.		
7332	Behmidt, J. B.	April 5, 1904	Graduate.	Lytton.		
7333	Shanger, L. G.	April 5, 1904	"	Krohn.	Wisconsin.	
7334	Sherlock, W. F.	April 5, 1904	"	Kennettburg.	Lenox.	
7335	Shenley, G. E.	April 5, 1904	"	West Liberty.	Indiana.	
7336	Smith, J. O.	April 5, 1904	By examination.	Sao City.	Mechanicsville.	
7337	Stokes, W. H.	April 5, 1904	"	Grinnell.	Iowa Falls.	
7338	Smith, W. C.	May 20, 1904	Graduate.	Des Moines.	Tennessee.	
7339	"	May 20, 1904	"	Des Moines.	Minnesota.	
7340	"	May 20, 1904	"	Kiokuk.		
7341	"	May 20, 1904	"	Avoca.	Sumner.	
7342	"	May 20, 1904	"	Des Moines.	Illinois.	
7343	"	May 20, 1904	"	Atlantic.	Mechanicsville.	
7344	"	June 7, 1904	By examination.	Burt.		
7345	"	June 7, 1904	"	Kiokuk.		
7346	"	June 7, 1904	"	Holstein.		
7347	"	June 7, 1904	"	Guthrie Center.		
7348	"	July 1, 1904	Graduate.	Webster City.		
7349	"	July 1, 1904	By examination.	Hampton.		
7350	"	July 1, 1904	"	Schleswig.	Illinois.	
7351	"	August 2, 1904	"	Des Moines.		
7352	"	August 2, 1904	"	Winfield.		
7353	"	August 2, 1904	"	Mondamin.		
7354	"	August 2, 1904	"	Davenport.		
7355	"	August 2, 1904	"	Stacyville.		
7356	"	August 2, 1904	"	Nora Springs.		
7357	"	August 2, 1904	By examination.	Maxwell.		
7358	"	August 2, 1904	"	Des Moines.	East Peru.	
7359	"	October 4, 1904	Graduate.	Oedar Rapids.	Illinois.	
7360	"	October 4, 1904	"	Des Moines.	Indiana.	
7361	"	October 4, 1904	"	Oxford.		
7362	"	October 4, 1904	"	Des Moines.	South Dakota.	
7363	"	October 4, 1904	By examination.	Jewell.	Collins.	
7364	"	December 6, 1904	Graduate.	Algona.		
7365	"	December 6, 1904	By examination.			

ABSTRACT—CONTINUED.

Number of certificates.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
8487	July 8, 1898	By examination	Salix.	.....	In Missouri.
8490	July 17, 1898	"	Williamsburg.....	.....
8506	August 21, 1898	"	Castana	Mapleton.	
8511	August 27, 1898	"	Fredericksburg.	.....
8646	April 18, 1899	"	Stonx City.	Carroll.	In N. Carolina.
8906	August 8, 1899	"	Oelwein .....	.....	In California.
8714	August 20, 1899	"	Dubuque .....	.....
8724	September 8, 1899	"	Anthon	Arizona.	
8786	September 17, 1899	"	Iowa Falls.	.....
8945	October 7, 1899	"	Collins	Aurora.	
4068	July 7, 1901	"	Bloomfield	Missouri.	
4147	November 28, 1901	"	Goldfield	Royal.	
4194	March 1, 1902	"	Spirit Lake	Kansas.	
435-4	March 2, 1902	"	Creston	Ottumwa.	
4360	January 9, 1903	"	Des Moines	Cambridge.	
4577	January 10, 1903	"	Brooklyn	Grinnell.	
4381	February 2, 1903	"	Carroll	Nora Springs.	
4440	January 31, 1903	"	Postville.	.....
4478	April 4, 1903	Graduate	Waterloo.	.....
4490	June 7, 1903	By examination	Kamrar	.....
4604	August 1, 1903	"	Carroll	.....	So. Dakota.
4628	January 2, 1904	"	Etherville.....	Adel.	Missouri.
4711	June 26, 1904	"	Greenfield .....	.....
4746	August 9, 1904	"	Centerville.....	.....
4761	October 2, 1904	"	Des Moines.	Richland.	
4786	December 4, 1904	"	Dubuque	Ottumwa.	
4865	January 1, 1905	"	Central City .....	.....
4906	April 9, 1904	"	Adair.	.....
4928	July 16, 1905	"	Des Moines	West Liberty.	Oklahoma.
5010	October 1, 1905	"	Colfax	Rowley	
5061	February 4, 1906	"	Monona .....	.....
5100	March 8, 1906	"	Carroll.	Mason City.	
5107	April 21, 1906	Graduate	Corwith .....	.....	Washington.
5186	June 22, 1906	By examination	Murray .....	.....	Washington.
5196	July 7, 1906	"	Adair .....	.....	Illinois.
5197	January 5, 1907	"	Dubuque .....	.....
5198	January 14, 1907	"	State Center	West Union.	

5301	Tauscher, David	February	2, 1897	By examination	Victor	Keota.
5302	Trumbull, E. J.	April	6, 1897	"	Union	Courad.
5303	Twining, E. Leroy	April	6, 1897	"	Des Moines	
5304	Todd, J. A.	July	8, 1897	"	Waterloo	
5305	Thomas, J. J.	July	6, 1897	"	Whiting	
5306		July	6, 1897	"	Fairfield	
5307		July	6, 1897	"	Des Moines	Randolph.
5308		October	5, 1897	"	Des Moines	Greene.
5309		December	7, 1897	"	Orange	
5310		April	5, 1898	"	Centerville	
5311		March	31, 1898	Graduate	Vinton	Urbana.
5312		May	6, 1898	By examination	Glenwood	
5313		June	7, 1898	"	Charles City	
5314		June	7, 1898	"	Des Moines	
5315		August	5, 1898	Graduate	Albia	Albia.
5316		May	2, 1899	By examination	Wyoming	Lone Rock.
5317		May	2, 1899	"	Des Moines	
5318		July	6, 1899	Graduate	Waterloo	
5319		August	1, 1899	Graduate	Des Moines	Algona.
5320		August	1, 1899	"	Iowa City	
5321		September	5, 1899	"	Stanhope	
5322		November	9, 1899	"	Des Moines	
5323		November	9, 1899	By examination	Badger	Paulina.
5324		November	9, 1899	Graduate	Oacola	Albia.
5325		January	2, 1900	Graduate	Des Moines	Harcourt.
5326		February	6, 1900	By examination	Aurora	Rockford.
5327		February	6, 1900	"	Central Rapids	
5328		June	5, 1900	"	Waterloo	
5329		June	5, 1900	"	Schaller	Dunlap.
5330		September	4, 1900	Graduate	Des Moines	
5331		October	2, 1900	By examination	Mason City	
5332		November	8, 1900	Graduate	Des Moines	Monticaine.
5333		January	1, 1901	"	Story City	Montgomery.
5334		May	7, 1901	"	Waterloo	
5335		May	7, 1901	By examination	Stanhope	Riverside.
5336		May	6, 1901	"	Des Moines	
5337		August	2, 1901	Graduate	Newton	Colfax.
5338		September	1, 1901	"	Independence	Iowa Falls.
5339		October	1, 1901	"	Des Moines	
5340		October	1, 1901	"	Des Moines	
5341		October	1, 1901	"	Des Moines	
5342		April	1, 1902	By examination	Northwood	
5343		April	1, 1902	"	Villisca	Ledyard.
5344		April	1, 1902	Graduate	Columbus Junction	
5345		May	5, 1902	"	Villisca	
5346		August	5, 1902	"	Walnut	Oakaloon.
5347		August	5, 1902	"	Des Moines	South Dakota.
5348		August	5, 1902	"	Columbus City	Hampton.
5349		August	5, 1902	"	Farmhamville	Laurens.
5350		August	5, 1902	"	Lake Mills	Clear Lake.
5351		August	5, 1902	"	Des Moines	
5352		October	7, 1902	"	Des Moines	
5353	Turkington, E. O.	May				
5354	Tice, T. A.	August				
5355		August				
5356		August				
5357		August				
5358		August				
5359		August				
5360		October				

[illegible]

ABSTRACT--CONTINUED.

Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
415 W.	June 23, 1890	As owner	Calamus.		
450 W.	June 5, 1890	As assistant	Dubuque.		
528 A. A.	June 24, 1890	As owner	Ainsworth.		
556 J.	June 18, 1890	As assistant	Emmetsburg.		
583 A.	June 10, 1890	As owner	Gilman.		
597 J.	June 10, 1890	"	Gilman.		
630 W. R.	June 11, 1890	"	Hopkinton.		
632 W. R.	June 9, 1890	"	Heeper.		
675 W. R.	June 30, 1890	"	Knoxville.		
927 W. R.	June 7, 1890	As assistant	Chapin.	Salem.	
945 W. R.	June 6, 1890	As owner	Northwood.		California.
979 W. R.	June 29, 1890	"	Des Moines.		
980 W. R.	June 5, 1890	As assistant	Perry.	Dana.	
1047 W. R.	June 9, 1890	"	Raidolph.	Afton.	
1092 W. R.	June 8, 1890	"	Shenandoah.	St. Charles.	
1241 W. R.	June 12, 1890	"	Unionville.		
1268 W. R.	June 16, 1890	Graduate	Waterloo.		
1338 W. R.	June 16, 1890	"	Waterloo.		
1359 W. R.	June 16, 1890	As assistant	Burlington.		
1373 W. R.	July 16, 1890	"	Atlantic.	Knoxville.	
1456 W. R.	July 26, 1890	As owner	Iowa City.		
1543 W. R.	July 7, 1890	"	New Virginia.		
1595 W. R.	August 2, 1890	"	Correctionville.		
1624 W. R.	August 4, 1890	By examination	Fairfield.	Des Moines.	
1633 W. R.	October 12, 1890	As owner	Waukegan.		
1777 W. R.	September 27, 1890	By examination	Volga City.		
1867 W. R.	October 23, 1890	"	Oelwein.		
1900 W. R.	November 21, 1890	"	Nashua.		
2024 W. R.	February 21, 1891	"	Strawberry Point.	Waterloo.	
2202 W. R.	September 26, 1891	"	Keota.	Correctionville.	
2247 W. R.	September 30, 1891	"	Arcadia.	Dedance.	
2322 W. R.	August 30, 1891	"	Lenox.	Leona.	
2373 W. R.	September 14, 1891	"	Oelwein.	Estherville.	
2456 W. R.	November 14, 1891	"	Centerville.		
2496 W. R.	June 12, 1893	"	Eldora.	Cedar Rapids.	
2506 W. R.	April 17, 1893	"	Davenport.		Illinois.
2516 W. R.	April 30, 1893	"			

2645	Ward, Perry	June	15, 1893	By examination	Waverly	Central City.
2656	Wilker, John J.	July	31, 1893	"	Early	Kingsley.
2656	Will, F. J.	November	6, 1893	"	J. well Junction.	Des Moines.
2746	Wright, L. D.	May	6, 1894	"	Knoxville	
2755	Widbel, Theodore.	May	6, 1894	"	Mt. Pleasant.	
2825	Waldburger, J. C.	January	8, 1895	"	Lehigh	Fort Dodge.
2843		March	12, 1895	"	Jamaica	Panora.
2853		April	7, 1895	"	Independence	
2859		April	8, 1895	"	Ottumwa	
2870		May	12, 1895	"	Rock Rapids.	Elma.
2881		October	6, 1895	"	New Hampton.	
2885		March	3, 1896	"	Marshalltown.	
2901		March	19, 1896	"	Newton.	
2900		April	29, 1896	"	Fort Dodge.	Winterset.
2918		June	25, 1896	Graduate.	Fayette.	
2919		July	9, 1896	"	Dubuque.	
2928		November	23, 1896	By examination	Fayette.	
2934		February	15, 1897	"	Peterson	
2940		February	23, 1897	"	Mason City.	Winterset.
3143	West, Frank J.	March	2, 1897	"	Hampton.	Waverly.
3150	Wick, Rollin E.	March	15, 1897	"	New Hartford.	
3158	Whitney, E. F.	March	14, 1897	"	Des Moines.	
3187	Walrod, Mrs. C. J.	March	21, 1897	"	Lake View	Storm Lake.
3241	Wills, D. H.	May	17, 1897	"	Moravia.	
3248		May	17, 1897	"	De Witt.	Rolfe.
3252		June	21, 1897	"	Holstein.	
3255		August	2, 1897	"	What Cheer.	Council Bluffs.
3266		October	4, 1897	"	Conrad.	
3243		November	5, 1897	"	Bellevue	Van Horne.
3276		February	7, 1898	"	Russell.	
3283		March	7, 1898	Graduate	Kingsley.	
3411		January	23, 1898	By examination	Des Moines	Ottumwa.
3453		July	14, 1898	"	Grinnell	
3523		September	4, 1898	"	Mt. Air.	West Union.
3545	White, Fred W.	November	19, 1898	"	Clermont	
3551	Wasser, Lot E.	November	29, 1898	"	Bloux City.	
3556	Wiel, Joseph	February	19, 1899	"	Mt. Carmel.	Rolfe.
3554	Wright, Frank	February	19, 1899	"	(on way.	
3549	Walker, L. M.	April	14, 1899	"	Afton.	
3550		May	8, 1899	"	Oskaloosa.	Waterloo.
3555		May	27, 1899	"	What Cheer.	
3573		June	6, 1899	"	McGregor	Des Moines.
3728		September	4, 1899	"	Calliope	Hawarden.
3735	Woodward, H. H.	September	17, 1899	"	Cambridge	Hastie.
3735	Weller, R.	September	26, 1899	"	Melbourne	Adair.
3820	Wilson, C. L.	January	7, 1899	"	Hedrick.	
3825	Wagh, Walter	February	4, 1899	"	Kingsley	Holstein.
3825	Way, Bayard C.	February	18, 1899	"	Milo.	Mason City.
3825	Wilson, Lee S.	February	28, 1899	"	Britt	Early.
3843		March	4, 1899	"	Ireton	

ABSTRACT—CONTINUED.

Number of certificates.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
3848	Wray, Walter L.	March 14, 1890	By examination.	Oskaloos	Nevada.	Illinois.
3850	Wilson, Frank D.	March 18, 1890	"	Keokuk	"	"
3868	"	March 31, 1890	"	Marion.	"	"
3892	"	March 16, 1890	"	Underwood.	"	"
3909	"	July 15, 1890	"	Oedar Falls.	"	"
3940	"	September 23, 1890	"	Marion.	Des Moines.	"
3945	"	October 7, 1890	"	Letts.	Muscatine.	"
3968	"	December 1, 1890	"	Alden.	"	"
3986	"	February 4, 1891	"	Brush Creek.	"	"
4011	"	March 7, 1891	"	Kellogg	"	"
4014	"	March 7, 1891	"	Le Grande	"	Minnesota.
4038	"	April 15, 1891	"	Fayette	Des Moines.	"
4049	"	May 5, 1891	"	Oskaloos	Hawkeye.	"
4058	"	May 8, 1891	"	Oskaloos	Buxton.	"
4067	"	June 2, 1891	"	Odebolt	Oakland.	"
4140	"	November 10, 1891	"	What Cheer.	Montesuma.	"
4170	"	February 2, 1892	"	Des Moines	Maquokete.	"
4176	"	February 6, 1892	"	Malcom.	Mechanicsville.	"
4214	"	April 5, 1892	"	Tipton.	Oceola.	"
4216	"	April 7, 1892	"	New Market.	"	"
4230	"	April 12, 1892	"	Des Moines.	"	"
4240	"	April 7, 1892	"	Newton.	"	"
4278	"	June 7, 1892	"	Cascade.	"	"
4288	"	July 25, 1892	"	Vail	"	Idaho.
4307	"	August 4, 1892	Graduate	Waterloo.	Decorah.	"
4341	"	September 6, 1892	By examination	Webster City	"	Oklahoma.
4347	"	December 6, 1892	"	Jewell Junction	Mason City.	"
4366	"	January 8, 1893	"	Marshalltown.	"	"
4369	"	January 31, 1893	"	Newton.	"	"
4418	"	March 10, 1893	Graduate	Scranton.	"	Oklahoma.
4438	"	March 8, 1893	By examination	Council Bluffs	"	"
4457	"	April 4, 1893	"	Council Bluffs.	"	"
4468	"	May 2, 1893	"	Bloomfield	"	"
4470	"	June 6, 1893	By examination	Smithland.	"	"
4507	"	June 6, 1893	"	Sigourney.	"	"
4517	"	August 31, 1893	"	Foster	"	"
4522	"	September 5, 1893	"	Ottumwa.	"	"
4532	"	September 26, 1893	"	Montesuma.	"	"

4599	Whelihan, J. Frank.	November	3, 1896	Graduate	Cedar Rapids.	South Dakota.	
4601	Womeldorf, John M.	December	5, 1896	By examination	.....	.....
4605	Will, Edw. O.	January	2, 1894	"	.....	.....
4607	Walrod, T. S.	December	20, 1893	"	.....	.....
4623	Williams, A. H.	April	3, 1894	"	.....	.....
4640		June	5, 1894	"	Odebolt	Creston.	
4655		June	5, 1894	"	Beacon	Sheldon.	
4661		June	5, 1894	"	Larchwood.	Reanor.	
4666		June	5, 1894	"	Pomeroy.	.....
4670		July	2, 1894	"	Waterloo.	Plainfield.	
4686		July	8, 1894	"	Rathven	Colorado.	
4699		August	7, 1894	"	Cedar Falls.	.....
4708		November	5, 1894	"	Monroe	Kriterim.	
4770		November	17, 1894	"	Eatherville.	.....
4774		January	23, 1895	"	Eagle Grove.	Waterloo	
4805		February	5, 1895	"	Sheldon	Larchwood.	
4811	M	March	20, 1895	"	Hopkinton.	.....
4850		April	2, 1894	"	Jeanp	.....
4867		June	5, 1894	"	Bancroft.	.....
4894		July	2, 1896	"	Stoughton	Centerville.	
4897		August	6, 1895	"	Bloomfield.	Des Moines.	
4924		September	3, 1895	"	Rathven	Royal.	
4980		April	8, 1895	"	New Hampton	.....	New Mexico.
5003		February	4, 1896	"	Scranton	Malvern.	
5032		March	17, 1896	"	Eagle Grove	Woodstock.	
5034		March	2, 1895	"	Dubuque	.....
5038		March	8, 1894	"	Wilton	Slater.	
5082		April	7, 1896	"	Colfax.	.....
5110		July	7, 1896	"	Burlington.	.....
5119		August	4, 1896	By examination.	Epoufay	Pringhar.	
5171		December	1, 1896	"	Atalissa	Wellman.	
5177		February	2, 1897	"	Waterloo.	.....
5231		March	16, 1897	Graduate	Clarinda	Kansas.	
5253		April	7, 1897	By examination.	Waverly	Westchester.	
5255		April	6, 1897	"	Fonda	Spencer.	
5276		June	1, 1897	"	Delta	Monroe.	
5277		June	1, 1897	"	Manning	Ames.	
5341		October	5, 1897	"	Griswold	.....
5342		October	5, 1897	"	Hull	Sheldon.	
5343		October	5, 1897	"	Waterloo	Beaman.	
5346		November	2, 1897	"	Des Moines	.....
5348		November	9, 1897	"	De Soto	.....
5380		May	7, 1895	"	New Market.	.....
5370		December	7, 1897	"	New Virginia.	.....
5376		January	4, 1898	"	Mechanicsville	.....
5385		February	1, 1898	"	Waterloo	Cedar Rapids.	
5449		April	5, 1898	"	Clarinda	Washburn.	
5451		April	5, 1898	"	.....	Loveland.	
5452		April	5, 1898	"	.....	.....

ABSTRACT--CONTINUED.

Number of certificate.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
5455	April 5, 1898	By examination	Hubbard	Washington	
5456	April 5, 1898	Graduate	Crawfordville	Quasqueton	
5457	March 31, 1898	Graduate	Maynard		
5458	May 3, 1898	By examination	La Verne		
5459	July 27, 1898	Graduate	Manchester	Wellman.	
5460	November 1, 1898	By examination	Iowa City		
5461	March 7, 1899	"	Mt. Pleasant		
5462	April 4, 1899	"	Bloomfield		
5463	May 17, 1899	Graduate	Waterloo	Spokane.	
5464	May 17, 1899	By examination	Bristol	Lester.	
5465	May 2, 1899	"	Pella	Minnesota.	
5466	May 2, 1899	"	Ridgeway	North Dakota.	
5467	May 2, 1899	"	Bloomfield	Hedrick	
5468	July 4, 1899	Graduate	Des Moines	Sioux City.	
5469	August 1, 1899	"	Burlington	Iowa City.	
5470	August 1, 1899	"	Council Bluffs	Nebraska.	
5471	August 1, 1899	By examination	Le Mars.	Britt.	
5472	August 4, 1899	Graduate	Des Moines	St. Louis, Mo.	
5473	June 5, 1899	Graduate	Keokuk	Illinois.	
5474	September 5, 1899	By examination	Ottumwa	Cartersville.	
5475	September 5, 1899	"	Marathon		
5476	September 5, 1899	"	Ft. Dodge		
5477	November 9, 1899	"	Germania.	Chicago, Ill.	
5478	January 2, 1900	Graduate	Charles City		In Indiana.
5479	January 2, 1900	"	Toronto		In Oklahoma.
5480	January 2, 1900	By examination	Des Moines		
5481	February 6, 1900	"	Des Moines		
5482	February 6, 1900	"	Moorhead.	Seattle.	
5483	February 6, 1900	Graduate	Bode.		
5484	February 6, 1900	By examination	Cambridge	California.	
5485	March 6, 1900	"	Pioneer	Eldon.	In Colorado.
5486	March 6, 1900	"	Anita		
5487	April 3, 1900	"	Avoca.		
5488	April 3, 1900	"	Bellevue.		
5489	April 3, 1900	"	Diagonal	Webster City.	
5490	May 1, 1900	Graduate	Milford	Webster City.	
5491	May 1, 1900	"	Dubuque		In Wisconsin.
5492	May 1, 1900	"			

6026	May	1, 1900	By examination	Bloomfield.	Runnels.	In Oklahoma.
6046	June	6, 1900	"	Granger	"	"
6071	July	10, 1900	"	Hampton.	"	"
6084	August	7, 1900	Graduate	Des Moines	"	In Colorado.
6090	August	7, 1900	"	Des Moines	"	In Missouri.
6106	August	7, 1900	By examination	Mason City	Clear Lake	"
6113	September	4, 1900	Graduate	Valley Junction.	"	"
6178	November	8, 1900	"	Des Moines	Thurman.	"
6196	December	4, 1900	By examination	Des Moines	Mapleton.	"
6208	December	4, 1900	"	Tipton	Mechanicsville.	"
6219	February	5, 1901	Graduate	Council Bluffs	Pigeon	"
6292	May	7, 1901	"	Des Moines	Chicago, Ill.	"
6381	August	8, 1901	"	Clarion	Woolstock	In Nebraska.
6339	August	6, 1901	By examination	Des Moines	"	"
6439	September	3, 1901	Graduate	Waterloo	"	In Illinois.
6445	September	1, 1901	"	Council Bluffs	"	In Michigan.
6450	September	1, 1901	Graduate	Des Moines	"	In Washington.
6454	September	1, 1901	"	Des Moines	"	In Oklahoma.
6473	November	7, 1901	"	Des Moines	North English.	"
6495	December	8, 1901	"	Mitchellville	"	"
6518	January	6, 1902	By examination	Paton	Gowrie.	In Utah.
6538	January	7, 1902	"	Knorrville.	"	"
6551	February	4, 1902	"	Oskaloosa	Manlo.	"
6571	March	4, 1902	"	Webster City.	"	"
6585	March	4, 1902	Graduate	Gowrie	Albert City.	"
6589	March	4, 1902	By examination	Aplington.	"	"
6630	April	4, 1902	By examination	Schleswig	Kiron.	Colorado.
6646	April	1, 1902	"	Des Moines	"	"
6653	April	23, 1902	Graduate	Clinton.	Varina.	"
6659	May	6, 1902	By examination	Ackley	"	"
6656	May	6, 1902	"	Des Moines.	"	Illinois.
6656	June	3, 1902	Graduate	Des Moines.	Nebraska.	"
6738	August	4, 1902	"	Mitchellville	Missouri Valley.	Minnesota.
6789	August	5, 1902	"	Des Moines.	"	"
6790	August	5, 1902	"	Atlantic.	"	Oklahoma.
6791	August	5, 1902	"	Des Moines.	"	S. Dakota.
6792	August	5, 1902	By examination	Sioux City.	"	"
6811	August	5, 1902	Graduate	Whiting.	St. Ayr	"
6824	August	21, 1902	"	Kellerton	"	"
6853	October	7, 1902	"	Des Moines.	Indiana.	"
6854	October	7, 1902	"	Davenport.	"	"
6855	October	7, 1902	"	Des Moines.	Forster.	"
6856	October	7, 1902	"	Avery	"	"
6859	October	7, 1902	"	Adel.	"	Illinois.
6860	September	10, 1902	By examination	Davenport.	"	"
6884	November	5, 1902	Graduate	Missouri Valley	Minnesota.	"
6911	December	2, 1902	By examination	Melbourne.	"	"
6900	February	2, 1903	"	Hampton.	"	"
6901	February	3, 1903	"	Columbus Junction.	"	"

ABSTRACT—CONTINUED.

Number of cert. license.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
6962	Willey, Frank.	February	By examination.	Columbus Junction.	Chariton.	
6963	Weston, N. T.	February	"	Colfax	"	Montana.
6972	"	March	Graduate	Des Moines.	"	Illinois.
7008	"	April	"	Des Moines	"	Arkansas.
7009	"	April	"	Des Moines	"	"
7046	"	June	By examination	Rockwell City	Somera.	"
7046	"	June	"	Des Moines.	"	"
7064	"	July	Graduate	Iowa City	Davenport.	"
7076	"	July	"	Keokuk.	"	"
7091	"	July	"	Unbuque	Ontario.	"
7091	"	July	"	Unbuque	Illinois.	"
7092	"	July	By examination	Des Moines	Illinois.	"
7099	"	July	"	Hamburg	Farragut.	"
7101	"	July	"	Hamburg	"	"
7100	"	July	"	Siox City.	"	"
7184	"	August	Graduate	Panama	Petoival.	"
7186	"	August	"	Keosauqua	Galva.	"
7186	"	August	"	Council Bluffs	Wisconsin.	"
7187	"	August	"	Des Moines.	Pennsylvania.	"
7188	"	August	"	Marshalltown	Wisconsin.	"
7184	"	October	By examination	Keokuk.	"	"
7211	"	October	"	Des Moines.	"	"
7214	"	October	Graduate	Lake City.	"	"
7227	"	November	"	Dubuque.	"	"
7228	"	November	"	Woodward.	"	"
7234	"	November	"	Keokuk.	Nebraska.	"
7260	"	February	"	Des Moines.	"	"
7261	"	February	"	Sully.	"	"
7266	"	February	"	West Liberty	Indiana.	"
7266	"	April	"	Des Moines.	Colorado.	"
7266	"	April	"	Clearfield	Greenfield.	"
7267	"	April	By examination	Boone.	Missouri.	"
7266	fr.	April	Graduate	Keokuk	"	"
7266	"	May	"	Keokuk.	"	"
7267	"	May	"	Keokuk.	"	"
7266	"	May	"	Des Moines.	Missouri.	"
7411	"	June	By examination	Iowa City	"	"
7434	"	July	Graduate	Des Moines.	Charles City.	"
7441	"	July	"	Des Moines.	"	"

7453	Wolaver, F. S.	August	2, 1904	By examination	Des Moines	Colorado.
7454	Woodburn, O. W.	August	2, 1904	Graduate	Cincinnati	Washington.
7457	Wallace, R. M.	October	4, 1904	"	Burt.	
7458	Winnet, E. B.	October	4, 1904	"	Des Moines.	
7459		December	6, 1904	By examination	Nodaway.	Nebraska.
7471		February	7, 1905	Graduate	Sioux City	Eldon.
7473		February	7, 1905	"	Des Moines.	
7486		February	7, 1905	By examination	Boone.	
7499		April	22, 1905	Graduate	Bibley.	
7511		June	22, 1905	"	Keokuk.	
7544		June	6, 1905	"	Iowa City	California.
7548		June	6, 1905	By examination	Cincinnati.	
7568		June	19, 1905	"	Des Moines.	Indiana.
7599		June	19, 1905	Graduate	Clarence	Kanawha.
7570		June	19, 1905	"	Des Moines.	Uaceola.
7571		June	19, 1905	"	Hedrick.	
7581		July	12, 1905	"	Cedar Rapids	Indiana.
7583		July	12, 1905	"	Sioux City	Illinois.
7597		July	12, 1905	"	Des Moines.	Ohio.
7718		August	1, 1905	"	Afton.	
7739		August	1, 1905	"	Burlington.	
825		June	4, 1899	As owner	Manson	
2958		November	15, 1899	By examination	Danbury	Correctionville.
3022		January	19, 1894	"	Newburn	Chariton.
4002		March	8, 1891	"	Audubon	Omaha.
4080		March	24, 1891	"	Beaman	Nebraska.
4182		February	16, 1893	"	Maquoketa	Wisconsin.
4767		November	7, 1894	"	Sioux City	
4832		March	5, 1895	"	Shellsburg	
4858		April	2, 1894	"	Calmar	
5410		March	1, 1898	"	Leon.	
5991		August	7, 1900	Graduate	Des Moines	Colorado
6234		March	5, 1901	"	Manson	
6265		April	2, 1901	By examination	Oelwein	Albert City.
6353		July	2, 1901	"	Bloomfield.	Marshalltown.
6793		August	5, 1902	Graduate	Des Moines	
7029		June	2, 1903	"	Des Moines	Mt. Ayr.
7185	Yocom, W. W.	October	6, 1903	"	Springfield.	Nebraska.
7249	Verlan, Clyde E.	December	1, 1903	"	Davenport	LaPorte.
7319	Young, J. B.	February	2, 1904	By examination	Knoxville	Indiana.
7333	Young, R. R.	August	1, 1905	Graduate	Des Moines	
1647	Zeisig, Charles A.	August	25, 18-0	As owner	Moscow.	
4425	Zeigler, H. L.	March	28, 1898	By examination	Eagle Grove	
5464	Zeiser, E. W.	April	5, 1898	"	Sioux Rapids.	In Illinois.
5718	Zillig, J. A., Jr.	July	6, 1899	Graduate	Dubuque.	
6130	Zimmerman, Chas. F.	September	4, 1900	By examination	Cedar Rapids	
6355	Zeiger, Frank W.	July	9, 1901	"	Buffalo Center	Garner.
6447	Zimmerman, J. J.	October	1, 1901	Graduate	Chapin	
6519	Zak, J. J.	January	6, 1902	"	Pocahontas	In Illinois.
6640	Zimmerman, W. J.	April	1, 1902	By examination	Gowrie	Liscomb.

ABSTRACT—CONTINUED.

Number of certificate.	Name.	Date of Registration.	How Registered.	Place of Registration.	Latest Reported Address.	Remarks.
7067	Zimmerman, C. J.	July	Graduate	Van Horne.		
7139	Zieprecht, Carl W.	August	"	Dubuque.		
7186	Zelder, M. J.	October	"	Earling	Mapleton.	
7263	Zwanziger, J. W.	December	By examination	Frederika.		
7450	Zimmerman, Julius	November	"	Hampton	Oolo.	
7541	Zergen, G. F.	December	Graduate	Cedar Rapids		In Nebraska.
7672	Zimmerman, Floyd V.	June	"	Waterloo		In Indiana.

**RULES AND STANDING
COMMITTEES**

OF THE

Thirty-first General Assembly

1906

PRINTED BY ORDER OF THE GENERAL ASSEMBLY

**DES MOINES
BERNARD MURPHY, STATE PRINTER.
1906**

SENATE RULES.

REGULAR ORDER OF DAILY BUSINESS.

The following order shall govern:

1. Presentation of petitions or memorials, addressed to the Senate or the General Assembly.
2. Introduction of bills.
3. Resolutions.
4. Communications on the President's table including House messages.
5. Reports of standing committees, in the order in which they stand in the rules, except the committee on Engrossed and Enrolled Bills, Rules and Printing.
6. Reports of select committees.
7. Third reading of bills.
8. Unfinished business before the Senate.
9. Bills and other matters.
10. General order of the day.

STANDING RULES.

1. The President shall take the Chair at the hour to which the Senate is adjourned, and call the Senate to order; and if a quorum be present, he shall proceed with the regular order of daily business, unless otherwise ordered by the Senate, or unless a special order for the day shall interfere therewith. He shall preserve order and decorum, and decide all questions of order, subject to an appeal to the Senate. He shall appoint all committees, unless otherwise especially ordered. Immediately preceding the adjournment of each morning session; or, in case it cannot be done during that session, then as soon after the convening of the next following session as he may find most convenient, the President shall call for corrections of the Journal

of the last day's proceedings. He shall then cause any mistakes therein to be corrected by the Secretary, and the Journal shall then be approved.

2. The Senate shall, at its pleasure, elect a President pro tem. who shall hold his office during the remaining portion of the time for which the President was elected; and when the President shall from any cause be absent, the President pro tem shall preside, except when the Chair is filled by appointment by the President.

3. There shall be appointed by the Lieutenant Governor, at each session of the Senate, to hold their positions during such session, but subject to be discharged by the President of the Senate for inefficiency or misbehavior, or other reasons in his judgment justifying such discharge, six messengers for the Senate. And the President may appoint other messengers in the place of any discharged.

4. One-fourth of the members may have a call of the Senate, and absent members sent for and their attendance enforced.

5. When a member is about to speak in debate, or deliver any matter to the Senate, he shall rise from his seat and respectfully address himself to "Mr. President," and shall confine himself to the question under debate, avoid personalities, and the imputation of improper motives.

6. When the vote is taken viva voce, questions shall be distinctly put in this form, viz: "As many as are of the opinion (as the case may be) say 'aye.' " And after the affirmative voice is expressed: "As many as are of the contrary opinion say 'no.' " If the President doubt, or a division be called for, the Senate shall divide—those in the affirmative of the question shall first rise from their seats, and afterwards those in the negative.

7. Every member present when a question is put shall vote, unless he shall, for special cause, be excused by a vote of the Senate; but no member shall vote on any question in the event of which he is directly and personally interested, or, except by consent of the Senate in any case where he was not present when his name was called in the taking of the vote. Provided, that any member who was absent by leave of the Senate may vote at any time before the result is announced.

8. All motions (except to adjourn, postpone, or commit,) shall be reduced to writing, if required by any member of the Senate. Any motion or resolution may be withdrawn by the

mover, provided, the same has not been amended by the Senate, and that no amendment is pending thereto.

9. When a question is under debate no motion shall be received but to adjourn, to lay on the table, for the previous question, to postpone to a day certain, to commit or amend, to postpone indefinitely, which several motions shall have precedence in the order in which they are named; and no motion to postpone to a day certain, to commit or postpone indefinitely, being decided, shall be again allowed on the same day, and at the same stage of the bill or proposition. A motion to strike out the enacting clause of a bill shall have the precedence of a motion to amend; and, if carried, shall be considered equivalent to the rejection of the bill.

10. A motion to adjourn, to lay on the table, and for the previous question, shall be decided without debate, and all incidental questions of order rising after a motion is made for the previous question, and pending such motion, shall be decided—whether an appeal or otherwise—without debate.

11. The previous question shall be in this form: . “Shall the main question be now put?” It shall only be admitted when demanded by a majority of the members present, and its effect shall be to put an end to all debate, and bring the Senate to a direct vote upon pending amendments and then upon the main question unless otherwise indicated by the motion and ordered by the Senate, except that the member in charge of the measure under consideration shall have ten minutes in which to close the discussion, immediately before the vote is taken upon the main question. If the previous question is decided in the negative, the Senate shall proceed with the matter before it, the same as though the previous question had not been moved.

12. Any member may call for a division of a question, which shall be divided, if it comprehends propositions in substance so distinct that one being taken away substantive propositions shall remain for the decision of the Senate. A motion to strike out and insert shall be deemed indivisible; but a motion to strike out being lost, shall preclude neither amendments to the matter attempted to be stricken out, nor a motion to strike out and insert.

13. When a motion or question has been decided, any member having voted on the prevailing side, may move a reconsideration, on the same or next legislative day.

14. A motion to print any paper presented to the Senate may, on motion, be referred to the Committee on Printing, whose duty it shall be to report at the earliest time practicable, on the propriety of printing.

15. Every bill shall be introduced on the report of a committee, or by leave, and shall at once be given its first reading. Every bill and joint resolution shall have received three several readings previous to its passage; but no bill or joint resolution shall have its second and third readings on the same day, without a suspension of this rule; and every bill and joint resolution shall express in its title the object thereof. All rules of the Senate applicable to bills shall apply with equal force to joint resolutions. Each bill and proposed joint resolution, when introduced, shall be accompanied by a copy thereof, which shall be delivered, instead of the original, to the State Printer by the Secretary of the Senate.

16. Before the same is presented, there shall be endorsed on each petition a brief statement of the subject matter thereof, and on each bill and joint resolution the title thereof, and in either case the name of the Senator presenting the same. In presenting a petition, the Senator shall briefly state from his place in the Senate Chamber the subject matter to which the petition relates.

17. The first reading of a bill or joint resolution shall be for information, and, if objection be made to it, the question shall be, "Shall the bill (or joint resolution, as the case may be) be rejected?" If no objection be made, or the question to reject be lost, the bill or joint resolution shall go to its second reading without further questioning.

18. Upon the second reading of a bill or joint resolution, the President shall state it as ready for commitment, amendment or engrossment, and if committed, then the question shall be, whether to a select or standing committee, or a committee of the whole. If to a committee of the whole, the Senate shall determine on what day. If no objection is made, the President of the Senate may refer the bill or joint resolution to an appropriate committee or to such committee as the Senator who introduces the measure shall suggest. But if the bill or joint resolution be ordered to be engrossed, it shall be in order for its third reading any session after that day. No bill or joint resolution shall be committed or amended until it shall have been twice read.

19. (a) All bills carrying appropriations shall be referred to the Committee on Appropriations, which the Committee shall report back to the Senate not later than the first Monday after March 15. After the third legislative day prior to said Monday, House bills shall be reported back by said Committee within three days from the reference thereof.

(b) No bill carrying an appropriation shall be introduced after March 15 except by the Committee on Appropriations.

(c) On or before the first Monday after March 15, the Committee on Appropriations shall prepare an itemized schedule of all appropriations recommended by the Committee on Appropriations and have the same printed and laid upon the desks of members and no appropriation bill shall be taken up for consideration and passage until the third legislative day thereafter.

(d) All appropriation bills after being reported by the Committee on Appropriations shall first be considered by the Senate as in Committee of the Whole, President of the Senate presiding, after which they shall be reported to the Senate; and any amendments made in Committee of the Whole shall again be considered by the Senate after which further amendments may be proposed. While thus in Committee of the Whole, heads of departments for institutions and members of any board or commission or subordinates of the same may be summoned to appear and give information relative to their appropriations.

20. When a question is lost on engrossing a bill, or joint resolution for a third reading on a particular day, it shall not preclude a question to engross it for a third reading on a different day. After a third reading of a bill or a joint resolution, no amendment (except to fill blanks) shall be received except, by unanimous consent of the members present; and the vote on its final passage shall be immediately taken without debate.

21. A bill or joint resolution may be committed at any time previous to its third reading.

22. In filling blanks, the largest sum and longest time shall be first put.

23. On the return of a bill or joint resolution from the House, with an amendment, it shall be placed with the third reading of bills, unless the Senate shall otherwise order. On the question of adopting the amendment the vote shall be taken on the final passage of the bill, and if the amendment be adopted by a constitutional majority, no further vote is necessary.

24. All bills and joint resolutions introduced, except local or legalizing bills, shall be printed, unless otherwise ordered by the Senate, and committees may order to be printed any bills under consideration by them, and any substitutes for bills or resolutions reported by them.

25. It shall be in order for the Committee on Engrossed and Enrolled Bills, on Rules and on Printing, to report at any time, when no member is addressing the Senate.

26. When any special order of the day is not proceeded with on the day assigned, it shall stand as a general order on each succeeding day until disposed of, unless otherwise ordered, but its consideration cannot be moved until that order of business is reached, when it shall be taken up in order of its file, and shall be taken up in the order of precedence.

27. When the pending question is interrupted by a "Special Order," it shall, upon the disposal of the special order, be before the Senate in the same stage as if it had not been so interrupted.

28. Committees are permitted to employ clerks by the majority vote of the whole committee. The clerk shall be selected by such vote, and in like manner may be discharged for inefficiency, or when the services of the clerk become unnecessary.

29. Clerks of Senate committees, when not engaged in duties pertaining to such committees, or work assigned them by the committee chairman, shall be subject to the discretion of the Secretary of the Senate, for any labor connected with the duties of his position or his assistants. The Secretary shall, from time to time, make detail from said clerks to assist in preparing copy or correcting proof for the daily Journal.

30. All reports of committees on bills or resolutions shall be made in duplicate and be accompanied with the original bill or resolution to which the report relates: Providing that this rule shall not apply to the reports of committees on Enrolled and Engrossed Bills.

31. When a vote is taken in any committee upon any bill or resolution before it, or any motion relating to the merits thereof, the chairman shall see that no person is present except the members and clerk of said committee, unless otherwise ordered by the committee.

32. Smoking in the Senate Chamber is hereby prohibited while the Senate is in session. And any officer or employee who shall indulge in smoking while on duty in the Senate Chamber

or doorways leading thereto, shall thereby subject himself to liability of discharge.

33. Admission to the floor of the Senate Chamber shall be granted by the Doorkeeper to the Governor and his private secretary, members of the House of Representatives, the state officers and their deputies, judges of the several courts, ex-members of the Legislature, ex-state officers and the regular reporters of the Senate and clerks of committees. No persons, except those herein specified, shall be admitted, except upon special permission of the President of the Senate, or of a member of the Senate. And no person shall be permitted by members or otherwise to come upon the floor of the Senate or into the cloak rooms to solicit or influence Senators in their official action, or to sell any article or to solicit subscriptions. No officer, or employee elected or appointed by the Senate or any of its committees, shall solicit or endeavor to influence members of the Legislature, in their official action. Any person violating this rule shall be summarily dismissed by the Senate.

34. In case of disturbance or disorderly conduct in the lobby or gallery the presiding officer shall have the power to order the same cleared.

35. Before acting on executive business, the Senate Chamber shall be cleared, by direction of the President, of all persons except members, the Secretary, the Sergeant-at arms, members enjoined and the Secretary and Sergeant-at-Arms sworn, to observe secrecy.

36. When an adjournment has been ordered by a vote of the Senate, and before adjournment is declared by the President of the Senate, it shall be in order for the chairmen of the several committees to announce in open Senate the time and place of meeting of their respective committees.

37. No standing rule or order of the Senate shall be rescinded or suspended, nor shall any matter, tabled upon motion, be taken up, unless by a vote of two-thirds of the members present, except an order fixing the hour to which the Senate shall stand adjourned.

38. Resolutions, including concurrent resolutions, shall not be acted upon by the Senate upon the day the same are introduced or received by the Senate, but shall lie upon the table for one legislative day if any member object to the immediate consideration thereof. But if no member object, the same may

have immediate consideration. Nothing in this rule shall abridge or prevent the usual right of reference to committee.

39. The rules of parliamentary practice comprised in Cushing's Manual shall govern the Senate in all cases to which they are applicable, and in which they are not inconsistent with the standing rules or orders of the Senate, and joint rules of the Senate and House of Representatives.

40. The duties of the officers and employees of the Senate are as stated in the paragraphs relating thereto, and appended to these rules.

The Secretary of the Senate shall have charge of the Secretary's desk, and shall see that no one is permitted therein except himself and those assisting him. He shall be responsible for the custody and safe-keeping of all bills, resolutions and other matters laid before or introduced into the Senate, except while the same are in the possession of the committee to whom the same shall have been referred, and when delivering the same to said committee he shall take a proper receipt therefor. He shall see that the Journal of each day's proceedings is correctly and fully kept, and fully made up before the next day's session, and be responsible for its safe-keeping. He shall have control of Room 25, which is assigned to said Secretary for the use of himself and his assistants. He shall endorse on every bill or joint or concurrent resolution, the date of its introduction and by what Senator, or of its receipt from the House, and also what action relating thereto is taken by the Senate. The Assistant Secretaries shall be under his direction, and he shall assign to them their several duties in connection with the duties of the Secretary's desk.

The Sergeant-at-Arms shall wear the appropriate badge of his office; shall attend the Senate during its sessions; shall aid in the enforcement of order under the direction of the President of the Senate; shall execute the commands of the Senate from time to time, together with such process, issued by the authority thereof, as shall be directed to him by the presiding officers; shall see that the rule prohibiting smoking in the Senate Chamber is strictly enforced; shall, upon the request of any five members, have the Senate Chamber lighted up during any evening within the session, except Sunday, to an hour not later than 10 P.M.; shall see that no person, except one authorized to do so, disturbs or interferes with desks of the members, or with the books, papers, etc., thereat; shall see that the printed bills and daily

Journals are, at the earliest practicable period, properly distributed and filed upon the desks of Senators; shall have charge of the files in the Senate bill room, and shall see that no copy of bill is given out except to or upon the order of the President, a Senator or state officers; shall see that an additional doorkeeper is detailed for duty at the Senate Chamber upon each day within the session, except Sunday from 8:30 A. M. to 10 P. M., but should not five members of the Senate desire to occupy the Chamber to that hour, the detail may be relieved at 9 P. M.; shall have charge of the messengers of the Senate and see that they severally perform their duties, and shall promptly report to the President of the Senate any inefficiency or violations of duty on the part of said messengers. He shall direct the File Clerk, and Bill Clerk, if any employed, in the discharge of their duties.

The Doorkeeper of the Senate shall wear his appropriate badge of office; shall have special charge of the main door of the Chamber during the sittings of the Senate, and shall see that the other doors of the Senate are properly attended to; shall have general charge and oversight of the additional doorkeepers of the Senate; shall detail such of the additional doorkeepers for such general or special duties as the Sergeant-at-Arms may deem proper and necessary for the efficiency of the Senate and the protection of property within the Chamber; shall see that the rule relating to the admission to the floor of the Chamber is strictly enforced; shall, ten minutes before the opening of each session of the Senate, see that the floor is cleared of all persons not entitled to occupy the same during the session; shall attend to seating visitors, and shall announce all committees and messengers from the Governor or House.

The Janitor of the Senate shall have charge, under the direction of the Sergeant-at-Arms, of the cloak and retiring rooms adjoining the Chamber, and shall see that the same are kept in proper order.

The messengers of the Senate shall attend the Senate during its sittings and perform the duties generally devolving on like employees. While the Senate is sitting, two of their number shall be detailed for service in front of the Secretary's desk. The messengers shall be under the direction of the Sergeant-at-Arms, while the Senate is not sitting, and shall attend to such duties as he may assign them.

At least four messengers shall be on duty in the Senate Chamber upon every day of the session except Sundays, from 8:30 A. M. until 6 P. M., whether the Senate is in session or not.

SENATORS

District	NAME	P. O. ADDRESS	COUNTIES IN DISTRICT	OCCUPATION	NATIVITY	Years in Iowa	Age
46	Bleakly, John L...	Ida Grove...	Cherokee, Ida, Plymouth...	Ret Merchant...	Ireland	33	49
12	Brooks, John T.*	Hedrick ...	Keokuk, Powe hiek...	Banker...	Iowa	55	55
18	Bruce, James E.*	Atlantic...	Cass, Shelby...	Atty & Bnkr	Iowa	45	45
38	Courtright, O. B.*	Waterloo...	Black Hawk, Grundy...	Lawyer...	Illinois	46	55
35	Crawford, P. W..*	Dubuque...	Dubuque...	Lawyer...	Vermont...	66	74
16	Crossley, J. J....	Winterset ..	Adair, Madison...	Lawyer...	Iowa	36	36
30	Dowell, Cassius C.*	Des Moines..	Polk.....	Lawyer...	Iowa	41	41
33	Dunham, Geo. W.	Manchester..	Buchanan, Delaware...	Attorney...	Iowa	46	47
28	Eckles, Charles...	Marshallto'n	Marshall...	Ret Farmer...	England...	40	65
2	Elerick, James....	Douds Stat'n	Jefferson, Van Buren...	Frmr & Stock	Ohio	52	66
31	Ericson, C. J. A..	Boone.....	Boone, Story...	Banker...	Sweden...	47	65
43	Gale, A. H.....	Mason City..	Cerro Gordo, Franklin, Hancock...	Banker...	Iowa...	42	42
48	Garst, Warren*...	Coon Rapids	Carroll, Greene, Sac...	Merchant...	Ohio...	40	54
8	Gilliland, Shirley.	Glenwood...	Mills, Montgomery...	Lawyer...	Iowa	49	49
13	Harper, Sam'l H.*	Ottumwa ...	Wapello.....	Wh. Hdware	Ohio...	52	62
37	Hartshorn, F. C.*	Clarion.	Hamilton, Hardin, Wright...	Bnkr. Rl Est.	Iowa	48	48
4	Hasselquist, R. A	Chariton ...	Lucas, Wayne.....	Merchant...	Sweden...	36	55
21	Hayward, W. C.*	Davenport ..	Scott	Manufact'rer	New York	41	58
34	Hogue, Ernest L.*	Blencoe.	Crawford, Harrison, Monona	Farmer...	Iowa	43	43
17	Hopkins, Frank M	Guthrie Cntr	Andubon, Dallas, Guthrie...	Banker...	Iowa	51	51
25	Hughes, John, Jr.	Williamsb'rg	Iowa, Johnson.....	Lumber Dlr.	Ohio...	49	64
32	Jackson, John H..	Sloux City..	Woodbury.....	Lawyer...	Wisconsin...	21	42
11	Jamison, James H.	Osceola.....	Clarke, Warren.....	Attorney	Iowa	44	44
14	Jones, Wm. G ...	Oskalooosa...	Mahaska	Lawyer	Iowa	44	44
49	Kimmel, Wm. C..	Sheldon.....	Lyon, O'Brien, Osceola, Sioux	Frmr & Stock	Pennsylvania	22	51
47	Kinne, George....	Curlew.....	Clay, Dickinson, Emmet, Kossuth, Palo Alto...				
23	Lambert, Thomas.	Sabula.....	Jackson	Farmer...	Wisconsin...	24	44
7	Lewis, Lester W.*	Clarinda	Fremont, Page	Publisher...	Iowa	50	50
				Banker...	Illinois...	24	45

42	Lyons, D. A.*	Cresco.....	Howard, Winneshiek.....	Implt Dealer.....	Illinois.....	37	52
29	Maytag, Fred L.*	Newton.....	Jasper.....	Manufact'ger.....	Illinois.....	36	46
20	Molsberry, F. M.*	Columb's Jet.....	Louisa, Muscatine.....	Lawyer.....	Iowa.....	37	37
36	Newberry, Byron W.	Strawb'ry Pt.....	Clayton.....	Lawyer.....	Ohio.....	48	50
19	Saunders, Chas. G.	Council Bl'fs.....	Pottawattamie.....	Lawyer.....	New York.....	35	42
9	Smith, Fred N.*	Burlington.....	Des Moines.....	Farmer.....	Iowa.....	53	53
41	A.*	Osage.....	Mitchell, Winnebago, Worth	Lumberman.....	New York.....	34	52
44	C.*	Marble Rock.....	Chickasaw, Floyd.....	Farmer.....	New Hampshire.....	34	65
24	Stirton, Robert C.	Monticello.....	Cedar, Jones.....	Banker.....	Scotland.....	32	42
5	Stokey, Marion C.	Leon.....	Decatur, Ringgold, Union.....	Lawyer.....	Indiana.....	46	57
26	Stuckelager, W. C.	Lisbon.....	Linn.....	Banker.....	Iowa.....	34	34
3	Taylor, Lewis L.	Centerville.....	Appanoose, Davis.....	Banker.....	Kentucky.....	54	60
6	Turner, Daniel W.	Corning.....	Adams, Taylor.....	Merchant.....	Iowa.....	26	26
39	Wade, John F. .	Aredale.....	Bremer, Butler.....	Firm & Bnkr.....	Vermont.....	39	44
15	Warren, J. L.....	Pella.....	Marion, Monroe.....	Lawyer.....	Iowa.....	43	43
45	Whipple, Wm. P.*	Vinton.....	Benton, Tama.....	Lawyer.....	Iowa.....	46	46
40	Wilson, A. C.....	Oelwein.....	Allamakes, Fayette.....	Druggist.....	Canada.....	25	45
22	Wilson, John L.*	Almont.....	Clinton.....	Farmer and Stock.....	Iowa.....	46	46
50	Winne, E. K.*	Humboldt.....	Buena Vista, Humboldt, Pocahontas.....	Real Estate.....	Iowa.....	29	29
1	Young, David A.*	Argyle.....	Lee.....	Farmer and Stock.....	Illinois.....	43	51
27	Young, Henry.....	Manson.....	Calhoun, Webster.....	Physician.....	Illinois.....	31	57
10	Vonne, John A.*	Washington.....	Henry Washington	Banker.....	Indiana.....	60	65

OFFICERS OF THE SENATE.

Office.	Officer.	Post Office.	County.	Occupation.	Nativity	Age.	Years in Iowa.	Married or Single.	Army Service.	Des Moines Residence.
President.	John Herriott	Stuart	Guthrie	Druggist	Penn	54-60		Married	1st. Penn Res Cav.	Severy.
Secretary.	Geo. A. Newman	Cedar Falls	Black Hawk	Dentist	N. Y.	63-25		Married	Co. G. 8th N. Y. Cav	
First Asst. Sec'y.	Geo. A. Willson	Menlo	Adair	Student	Iowa	31-22		Single		
Second Asst. Sec'y	J. L. Gillespie	Nevada	Story	Lawyer	Iowa	35-36		Married		
Engrossing Clerk.	Leis M. Rigby	Davenport.	Scott	Stenographer	Iowa	54-54		Single		
Enrolling Clerk.	Isaac Black	Knoxville	Marion	Stenographer	Iowa	37-27		Single		
Journal Clerk.	Cecil Dixon	Rockwell City.	Calhoun	Merchant	Iowa	35-25		Single		
Journal Clerk.	John Connally	Des Moines	Polk	Collector.	Ireland.	47-31		Married		
Sergeant-at-Arms.	R. B. Huff	Muscatine	Muscatine	Real Estate.	Ohio	61-55		Married		1448 East Grand. re.
File Clerk	Thos. Brown	Blanco	Menona	Merchant	Penn.	33-39		Married		
Bill Clerk.	Alice Scott	Oacola	Clarke	Stenographer	Illinois	37-36		Single		
Post Mistress.	Nellie Stevenson	Jefferson	Greene		Iowa	23-35		Single		
Doorkeeper.	J. L. Hammer	Kellogg	Jasper	Hotel keeper.	Tenn	65-60		Married	7th Iowa Cav.	

Assistant Doorkeepers—D. W. Sheas, J. H. Carter, W. McFadden, L. D. McAlpine, M. E. Erwin, J. H. Stewart, H. Armstrong, Thos. Hager.

Janitors—Jeff Logan, O. S. Erwin, Wm. Thompson.

Pages—Ewing Scott, H. Nixon Street, Karl N. Baker, Cleveland Foster, Wm. Welch, Carroll Bennett, Harry Brad, James Davy.

STANDING COMMITTEES OF THE SENATE.

WAYS AND MEANS—24.

Senator Hayward,
Crossley,
Lewis,
Hartshorn,
Hogue,
Bruce,
Whipple,
Molsberry,

Senator Young of Washington,
Winne,
Ericson,
Hughes,
Gilliland,
Gale,
Lambert,
Smith of Des Moines.

JUDICIARY—22.

Senator Dowell,
Crawford,
Whipple,
Courtright,
Molsberry,
Bruce,
Crossley,
Dunham,

Senator Jamison,
Warren,
Gilliland,
Saunders,
Stookey,
Newberry,
Jones,
Jackson.

APPROPRIATIONS—24.

Senator Garst,
Smith of Mitchell,
Hopkins,
Harper,
Maytag,
Spaulding,
Brooks,
Saunders,

Senator Turner,
Dunham,
Young of Calhoun,
Eckles,
Stookey,
Kinne,
Lyons,
Wilson of Clinton.

AGRICULTURE—23.

Senator Brooks,
Crossley,
Hopkins,
Hogue,
Spaulding,
Courtright,
Bruce,
Ericson,

Senator Eckles,
Elerick,
Newberry,
Hughes,
Kinne,
Kimmel,
Smith of Des Moines,
Young of Lee.

RAILROADS—23.

Senator Smith of Mitchell,
Hopkins,
Hartshorn,
Courtright,
Harper,
Winne,
Molsberry,
Jamison,

Senator Saunders,
Hasselquist,
Elerick,
Gale,
Jackson,
Bleakly,
Smith of Des Moines
Stirton.

CITIES AND TOWNS—23.

Senator Courtright,
Crawford,
Harper,
Whipple,
Hayward,
Dowell,
Young of Washington,
Gilliland,

Senator Stuckslager,
Jackson,
Eckles,
Turner,
Jones,
Wilson of Clinton,
Smith of Des Moines.

SUPPRESSION OF INTEMPERANCE—18.

Senator Dunham,
Smith of Mitchell,
Young of Washington,
Brooks,
Winne,
Whipple,
Ztookey,

Senator Warren,
Bruce,
Gale,
Bleakly,
Lyons,
Lambert.

INSURANCE—28.

Senator Whipple,
Smith of Mitchell,
Courtright,
Maytag,
Bruce,
Ericson,

Senator Warren,
Stuckslager,
Young of Calhoun,
Turner,
Lyons,
Wade.

SCHOOLS—28.

Senator Crossley,
Molsberry,
Dunham,
Hopkins,
Whipple,
Jamison,

Senator Wilson of Fayette,
Kinne,
Warren,
Wilson of Clinton
Taylor.

CONGRESSIONAL AND JUDICIAL DISTRICTS—20.

Senator Molsberry, Harper, Dowell, Gilliland, Hasselquist, Wilson of Fayette,	Senator Stuckslager, Young of Calhoun, Jackson, Wade, Stirton.
--	--

SENATORIAL AND REPRESENTATIVE DISTRICTS—17.

Senator Bruce, Winne, Garst, Lewis, Smith of Mitchell, Young of Washington,	Senator Hughes, Hasselquist, Kimmel, Lyons, Young of Lee.
--	---

ELECTIONS—29.

Senator Lewis, Molsberry, Courtright, Crossley, Bruce, Dunham,	Senator Jackson, Gilliland, Kinne, Wilson of Clinton Stirton.
---	---

CONSTITUTIONAL AMENDMENTS AND SUFFRAGE—22.

Senator Jamison, Courtright, Molsberry, Crossley, Newberry, Hartshorn,	Senator Stuckslager, Saunders, Jackson, Stirton, Lambert.
---	---

PUBLIC HEALTH—17.

Senator Young of Calhoun, Spaulding, Hayward, Dowell, Crawford, Young of Washington,	Senator Ericson, Saunders, Wilson of Fayette, Taylor, Stirton.
---	--

PUBLIC LIBRARIES—20.

Senator Ericson, Hopkins, Crossley, Courtright, Garst, Maytag,	Senator Gilliland, Young of Calhoun, Gale, Lambert, Smith of Des Moines.
---	--

TELEGRAPH AND TELEPHONES—28.

Senator Hopkins,
Hayward,
Winne,
Whipple,
Maytag,
Brooks,

Senator Stookey,
Kimmel,
Kinne,
Lambert,
Wade.

CORPORATIONS—18.

Senator Hogue,
Whipple,
Hasselquist,
Ericson,
Turner,
Gilliland,

Senator Bleakly,
Stuckslager,
Warren,
Stirton,
Wade.

BANKS—21.

Senator Stuckslager,
Young of Washington,
Ericson,
Hopkins,
Brooks,

Senator Lewis,
Bruce,
Gale,
Stirton.

MILITARY—18.

Senator Harper,
Crawford,
Turner,
Young of Washington,
Hughes,

Senator Elerick,
Eckles,
Stookey,
Wilson of Clinton.

LABOR—21.

Senator Winne,
Maytag,
Smith of Mitchell,
Harper,
Hughes,

Senator Wilson of Fayette,
Elerick,
Lyons,
Lambert.

EDUCATIONAL INSTITUTIONS—21.

Senator Young of Washington,
Hogue,
Brooks,
Hayward,
Wilson of Fayette,

Senator Hasselquist,
Jamison,
Stookey,
Taylor.

MINES AND MINING—17.

Senator Warren,
Ericson,
Hasselquist,
Maytag,
Elerick,

Senator Jamison,
Young of Calhoun,
Young of Lee,
Wade.

HIGHWAYS—18.

Senator Hasselquist,
Spaulding,
Hartshorn,
Lewis,
Winne,

Senator Kinne,
Dunham,
Young of Lee
Stirton.

PHARMACY—17.

Senator Wilson of Fayette,
Hopkins,
Hayward,
Garst,
Saunders,

Senator Molsberry,
Newberry,
Lyons,
Lambert.

PRINTING—29.

Senator Hartshorn,
Courtright,
Elerick,
Bleakly,
Eckles,

Senator Newberry,
Stookey,
Young of Calhoun
Lambert.

CHARITABLE INSTITUTIONS.

Senator Spaulding,
Hogue,
Harper,
Dunham,
Jackson,

Senator Kinne,
Kimmel,
Lyons,
Young of Lee.

BUILDING AND LOANS—19.

Senator Jones,
Crossley,
Harper,
Wilson of Fayette,
Hughes,

Senator Garst,
Bleakly,
Taylor,
Wade.

RULES—24.

Senator Maytag,
Dowell,
Hogue,
Hayward.
Dunham,

Senator Warren,
Gale,
Wilson of Clinton,
Lambert.

COMPENSATION OF PUBLIC OFFICERS—29.

Senator Jackson,
Hartshorn,
Lewis,
Jamison,

Senator Bleakly,
Smith of Des Moines,
Taylor.

PENITENTIARIES AND PARDONS—19.

Senator Saunders,
Brooks,
Crawford,
Smith of Mitchell,

Senator Newberry,
Stookey,
Young of Lee.

FEDERAL RELATIONS—20.

Senator Crawford, Hogue, Hartshorn, Lewis,	Young of Lee, Smith of Des Moines.
---	---------------------------------------

CLAIMS—19.

Senator Eckles, Garst, Spaulding, Crawford,	Senator Lewis, Kimmel, Young of Lee.
--	--

COMMERCE—16.

Senator Hughes, Harper, Dowell, Hogue,	Senator Elerick, Turner, Taylor.
---	--

MANUFACTURES—16.

Senator Gale, Maytag, Stuckslager,	Senator Young of Lee, Taylor.
--	----------------------------------

PUBLIC BUILDINGS—26.

Senator Stookey, Brooks, Garst,	Senator Jones, Wade.
---------------------------------------	-------------------------

HORTICULTURE AND FORESTRY—16.

Senator Elerick, Spaulding, Jones,	Lyons.
--	--------

FISH AND GAME—20.

Senator Kimmel, Winne, Jones,	Senator Wilson of Clinton, Lambert.
-------------------------------------	--

PUBLIC LANDS—26.

Senator Bleakly, Hogue,	Senator Wilson of Clinton.
----------------------------	----------------------------

ENGROSSED BILLS—26.

Senator Newberry, Jones,	Senator Hartshorn.
-----------------------------	--------------------

ENROLLED BILLS—22.

Senator Turner, Winne,	Senator Taylor.
---------------------------	-----------------

SENATORS AND THEIR RESPECTIVE COMMITTEES.

BLEAKLY.

Public Lands—Chairman, Printing, Building and Loan. Compensation of Public officers,	Corporations, Railroads, Suppression of Intemperance.
---	---

BROOKS.

Agriculture—Chairman, Appropriations, Public Buildings, Educational Institutions.	Penitentiaries and Pardons, Telegraph and Telephones, Banks, Suppression of Intemperance.
--	--

BRUCE.

Senatorial and Representative Districts—Chairman, Ways and Means, Judiciary, Elections,	Banks, Agriculture, Suppression of Intemperance, Insurance.
---	--

COURTRIGHT.

Cities and Towns—Chairman, Judiciary, Printing, Elections, Constitutional Amendments and Suffrage,	Public Libraries, Agriculture, Railroads, Insurance.
---	---

CRAWFORD.

Federal Relations—Chairman, Judiciary, Claims, Penitentiaries and Pardons,	Public Health, Military, Cities and Towns.
---	--

CROSSLEY.

Schools—Chairman, Ways and Means, Judiciary, Building and Loan, Elections.	Constitutional Amendments and Suffrage, Public Libraries, Agriculture.
--	---

DOWELL.

Judiciary—Chairman,
Commerce,
Rules,

Public Health,
Cities and Towns,
Congressional and Judicial Districts.

DUNHAM.

Suppression of Intemperance—
Chairman,
Judiciary,
Appropriations,
Highways,

Charitable Institutions,
Rules,
Elections,
Schools,

ECKLES.

Claims—Chairman,
Appropriations,
Printing,

Military,
Agriculture,
Cities and Towns.

ELERICK.

Horticulture and Forestry—Chair-
man,
Commerce,
Mines and Mining,
Printing,

Military,
Labor,
Agriculture,
Railroads.

ERICSON.

Public Libraries—Chairman,
Ways and Means,
Mines and Mining,
Corporations,

Banks,
Agriculture,
Insurance.

GALE.

Manufactures—Chairman,
Ways and Means,
Rules,
Public Libraries,

Banks,
Railroads,
Suppression of Intemperance.

GARST.

Appropriations—Chairman,
Claims,
Public Buildings,
Pharmacy,

Building and Loan,
Public Libraries,
Senatorial and Representative Dis-
tricts.

GILLILLAND.

Ways and Means,
Judiciary,
Elections,
Public Libraries,

Corporations,
Cities and Towns,
Congressional and Judicial Districts.

HARPER.

Military—Chairman,
Appropriations,
Commerce,
Charitable Institutions,
Building and Loan,

Labor,
Railroads,
Cities and Towns,
Congressional and Judicial Districts.

HARTSHORN.

Printing—Chairman,
Ways and Means,
Federal Relations,
Engrossed Bills,
Highways,

Compensation of Public Officers,
Constitutional Amendments and
Suffrage,
Railroads.

HASSELQUIST.

Highways—Chairman,
Educational Institutions,
Mines and Mining,
Corporations,

Railroads,
Congressional and Judicial Districts,
Senatorial and Representative Dis-
tricts.

HAYWARD.

Ways and Means—Chairman,
Educational Institutions,
Pharmacy,
Rules,

Public Health,
Telegraph and Telephones,
Cities and Towns.

HOGUE.

Corporations—Chairman,
Ways and Means,
Federal Relations,
Commerce,
Public Lands,

Educational Institutions,
Charitable Institutions,
Rules,
Agriculture.

HOPKINS.

Telegraph and Telephones—Chair-
man,
Appropriations,
Pharmacy,
Public Libraries,

Banks,
Agriculture,
Railroads,
Schools.

HUGHES.

Commerce—Chairman,
Ways and Means,
Building and Loan,
Military,

Labor,
Agriculture,
Senatorial and Representative Dis-
tricts.

JACKSON.

Compensation of Public Officers—
Chairman,
Judiciary,
Charitable Institutions,
Elections,

Constitutional Amendments and
Suffrage,
Railroads,
Cities and Towns,
Congressional and Judicial Districts.

JAMISON.

Constitutional Amendments and
Suffrage—Chairman,
Judiciary,
Educational Institutions,

Mines and Mining,
Compensation of Public Officers,
Railroads,
Schools.

JONES.

Building and Loan—Chairman,
Judiciary,
Public Building,
Horticulture and Forestry,

Fish and Game,
Engrossed Bills,
Cities and Towns.

KIMMEL.

Fish and Game—Chairman,
Federal Relations,
Claims,
Charitable Institutions,

Telegraph and Telephones,
Agriculture,
Senatorial and Representative Dis-
tricts.

KINNE.

Appropriations,
Highways,
Charitable Institutions,
Elections,

Telegraph and Telephones,
Agriculture,
Schools.

LAMBERT.

Ways and Means,
Fish and Game,
Pharmacy,
Printing,
Rules,
Constitutional Amendments and
Suffrage,

Public Libraries,
Telegraph and Telephones,
Labor,
Suppression of Intemperance.

LEWIS.

Elections—Chairman,
Ways and Means,
Federal Relations,
Claims,
Highways,

Compensation of Public Officers.
Banks,
Senatorial and Representative Dis-
tricts.

LYONS.

Appropriations,
Horticulture and Forestry,
Pharmacy,
Charitable Institutions,
Labor,

Suppression of Intemperance,
Insurance,
Senatorial and Representative
Districts.

MAYTAG.

Rules—Chairman,
Appropriations,
Manufactures,
Mines and Mining,

Public Libraries,
Telegraph and Telephones,
Labor,
Insurance.

MOLSBERRY.

Congressional and Judicial
Districts—Chairman,
Ways and Means,
Judiciary,
Pharmacy,

Elections,
Constitutional Amendments and
Suffrage,
Railroads,
Schools.

NEWBERRY.

Engrossed Bills—Chairman,
Judiciary,
Pharmacy
Printing,

Penitentiaries and Pardons.
Constitutional Amendments and
Suffrage,
Agriculture.

SAUNDERS.

Penitentiaries and Pardons—
Chairman,
Judiciary,
Appropriations,
Pharmacy,

Constitutional Amendments and
Suffrage,
Public Health,
Railroads.

SMITH OF DES MOINES.

Ways and Means,
Federal Relations,
Compensation of Public
Officers,

Public Libraries,
Agriculture,
Railroads,
Cities and Towns.

SMITH OF MITCHELL.

Railroads—Chairman,
Appropriations,
Penitentiaries and Pardons,
Labor,

Suppression of Intemperance,
Senatorial and Representative
Districts.

SPAULDING.

Charitable Institutions—Chairman, Appropriations, Claims, Agriculture,	Horticulture and Forestry, Highways, Public Health.
---	---

STIRTON.

Highways, Elections, Constitutional Amendments and Suffrage, Public Health,	Corporations, Banks, Railroads, Congressional and Judicial Districts.
---	--

STOOKEY.

Public Buildings—Chairman, Judiciary, Appropriations. Educational Institutions,	Printing, Penitentiaries and Pardons, Telegraph and Telephones, Military.
--	--

STUCKSLAGER.

Banks—Chairman, Manufactures, Constitutional Amendments and Suffrage,	Corporations, Cities and Towns, Insurance, Congressional and Judicial Districts.
--	---

TAYLOR.

Commerce, Manufactures, Enrolled Bills, Educational Institutions.	Building and Loan, Compensation of Public Officers, Public Health, Schools.
--	--

TURNER.

Enrolled Bills—Chairman, Appropriations, Commerce, Corporations,	Military, Cities and Towns, Insurance.
---	--

WADE.

Public Buildings, Building and Loan, Corporations, Insurance,	Mines and Mining, Telegraph and Telephones, Congressional and Judicial Districts.
--	---

WARREN.

Mines and Mining—Chairman, Rules, Suppression of Intemperance, Judiciary,	Corporations, Insurance, Schools.
--	---

WHIPPLE.

Insurance—Chairman,
Judiciary,
Corporations,
Cities and Towns,

Schools,
Ways and Means,
Telegraph and Telephones.
Suppression of Intemperance.

WILSON OF FAYETTE.

Pharmacy—Chairman,
Building and Loan,
Public Health,
Schools,

Educational Institutions,
Labor,
Congressional and Judicial Districts.

WILSON OF CLINTON.

Appropriations,
Public Lands,
Elections,
Cities and Towns,

Fish and Game,
Rules,
Military,
Schools.

WINNE.

Labor—Chairman,
Fish and Game,
Highways,
Railroads,
Suppression of Intemperance,

Ways and Means,
Enrolled Bills,
Telegraph and Telephones,
Senatorial and Representative Dis-
tricts.

YOUNG OF LEE.

Federal Relations,
Manufactures,
Highways,
Penitentiaries and Pardons,
Senatorial and Representative Dis-
tricts,

Claims,
Mines and Mining,
Charitable Institutions,
Agriculture.

YOUNG OF CALHOUN.

Public Health—Chairman,
Printing,
Insurance,
Appropriations,

Mines and Mining,
Public Libraries,
Congressional and Judicial Districts.

YOUNG OF WASHINGTON.

Educational Institutions—Chairman,
Banks,
Cities and Towns,
Senatorial and Representative Dis-
tricts.

Ways and Means,
Public Health,
Military,
Suppression of Intemperance.

RULES OF THE HOUSE.

DUTIES OF THE SPEAKER.

1. He shall take the chair every day precisely at the hour to which the House shall have adjourned; shall immediately call the members to order, and on appearance of a quorum shall cause the Journal of the preceding day to be read.

2. He shall preserve order and decorum, and speak to points of order in preference to other members, rising from his seat for that purpose; and he shall decide questions of order, subject to an appeal to the House by any two members.

3. He shall rise to put a question, but may state it sitting.

4. Questions shall be distinctly put in this form, to wit: "As many as are of the opinion that (as the question may be) say 'aye;' " and after the affirmative voice is expressed, "As many as are of a contrary opinion, say 'no.' " If the Speaker doubts, or a division is called for, the House shall be divided. Those in the affirmative of the question shall first rise from their seats, and afterward those in the negative.

5. The Speaker shall have a right to name any member to perform the duties of the chair, but such substitution shall not extend beyond an adjournment, except that in case of the absence of the regular Speaker, the House may proceed to elect a Speaker, pro tem., whose acts shall have the same validity as those of the Speaker.

6. All committees shall be appointed by the Speaker, unless otherwise especially directed by the House.

7. In all cases of a call of the yeas and nays, the Speaker shall vote; in other cases he shall not be required to vote unless the House is equally divided, or unless his vote, if given to the minority, will make the division equal, and in case of such equal division the question shall be lost.

8. All acts, addresses and joint resolutions shall be signed by the Speaker, and all writs, warrants, subpoenas, issued by order of the House, shall be under his hand and attested by the Clerk.

9. In case of any disturbance or disorderly conduct in the lobby, the Speaker or Chairman of the Committee of the Whole House shall have the power to have the same cleared.

10. After the Journal is read the following order shall govern:

1. Business pending at last previous adjournment.
2. Petitions or remonstrances to be offered.
3. Reports of committees:
 - Ways and Means.
 - Judiciary.
 - Appropriations.
 - Railroads and Commerce.
 - Schools and Text-Books.
 - Normal Schools.
 - Suppression of Intemperance.
 - Agriculture.
 - Mines and Mining.
 - Retrenchment and Reform.
 - Claims.
 - Compensation of Public Officers.
 - Insurance.
 - Banks and Banking.
 - Animal Industry.
 - County and Township Organization.
 - Roads and Highways.
 - Building and Loan.
 - Other committees.
4. Resolutions laid over under Rule 34.
5. Bills to be introduced.
6. Resolutions.
7. Messages and communications on the Speaker's table.
8. Bills and resolutions read a second time.
9. Bills on their passage.
10. Reports in the possession of the House shall be taken up in their order.
11. On and after the 10th day of February of each regular session, bills and joint resolutions which have been read the second time and engrossed shall be taken up in their proper order at three o'clock in the afternoon of each session and put upon their passage.

RULES AND STANDING COMMITTEES OF THE
OF DECORUM AND DEBATE.

11. When any member is about to speak in debate, or deliver any matter to the House, he shall rise from his seat and respectfully address himself to the presiding officer by his title, saying, "Mr. Speaker," and shall not proceed until he shall be recognized by the Chair, and shall confine himself to the question under debate and shall avoid personalities.

12. When any member in speaking, or otherwise, transgresses the rules of the House, the Speaker shall, or any member may, call him to order; in which case the member so called to order shall immediately sit down, but may be permitted with leave of the House to explain; and the House shall, if appealed to, decide the case, but without debate. If there be no appeal, the decision of the Chair shall be submitted to; if the decision be in favor of the member so called to order, he is at liberty to proceed. If the case requires it, he shall be liable to the censure of the House.

13. When two or more members happen to rise at once, the Speaker shall designate the member entitled to speak.

14. No member shall speak more than once on the same question without leave of the House, nor more than twice until every member choosing to speak shall have spoken, except as provided in section 26; provided further, when bills are being considered on their second reading debate thereon shall be limited to fifteen minutes to each member desiring to speak thereon, which may be extended by consent of the House.

15. While the Speaker is putting any question, or addressing the House, none shall walk out or across the House, or, when a member is speaking, shall entertain private discourse, nor while a member is speaking, pass between him and the Chair.

16. No member shall vote on any question in the event of which he is personally interested.

17. Upon a division and count of the House on any question, only those members standing in their places shall be counted.

18. Every member who shall be in the House when the question is put shall give his vote, unless the House for special reasons shall excuse him; but such a member must ask to be excused before commencing to take the vote on the main question.

19. When a motion is made and seconded, it shall be stated by the Speaker; or, being in writing, it shall be passed to the desk and read aloud by the Clerk before debated.

20. Every motion, except subsidiary or incidental motions shall be reduced to writing if the Speaker or any member desires it, but this exception shall not apply to motions to amend.

21. All bills, resolutions, petitions, memorials or other papers shall be accompanied by the name of the member presenting the same, and also the name of the county.

22. After a motion is stated by the Speaker, or read by the Clerk, it shall be deemed to be in possession of the House, but may be withdrawn by leave of the House.

23. When a question is under debate no motion shall be received but to adjourn; to lay on the table; for the previous question; to postpone to a certain day; to commit or amend; to postpone indefinitely; which several motions shall have precedence in the order in which they are arranged, and no motion to postpone to a day certain, to commit or postpone indefinitely being decided, shall again be allowed on the same day, and at the same stage of the bill or proposition. A motion to strike out the enacting words of a bill shall have precedence of a motion to amend; and, if carried, shall be considered equivalent to its rejection.

24. When a resolution shall be offered or a motion made to refer any subject, and different committees shall be proposed, question shall be taken in the following order: The Committee of the Whole House; a Standing Committee; a Select Committee.

25. A motion to adjourn shall always be in order, except when a member is speaking, or the House voting.

26. The previous question shall always be put in this form: "Shall the main question now be put?" It shall only be admitted when demanded by a majority of the members present, and its effect shall be to put an end to all debate, and to bring the House to a direct vote upon amendments and then upon the main question, except that the member in charge of the measure under consideration shall have ten minutes in which to close the discussion before the vote is taken. On a motion for the previous question and prior to seconding the same, a call of the House shall be in order; but after such motion shall have been adopted no call shall be in order prior to the decision of the main question. If the previous question is decided in the nega-

tive, the House shall proceed with the matter before it the same as though the previous question had not been moved.

27. Motions to lay on the table, to adjourn, and for the previous question, shall be decided without debate.

28. When a question is postponed indefinitely, it shall not be acted upon during the session.

29. Any member may call for a division of the question, which shall be devided if it comprehends questions so distinct that one being taken away, the rest may stand entire for the discussion of the House. A motion to strike out being lost shall preclude neither an amendment nor a motion to strike out and insert. A motion to strike out and insert shall be deemed indivisible.

30. Motions and reports may be committed at the pleasure of the House.

31. No motion or proposition on a subject different from that under consideration shall be admitted under color of amendment.

32. When a motion has been made and carried or lost, it shall be in order for any member of the majority, on the same or succeeding day, to move for a reconsideration thereof, and such motion shall take precedence of all other questions except the consideration of a conference report, a motion to fix the day to which House shall adjourn, to adjourn, or to take a recess, and shall not be withdrawn after the said succeeding day without the consent of the House; and thereafter any member may call it up for consideration, provided that such motion, if made during the last six days of the session, shall be disposed of when made.

33. Petitions, memorials, and other papers addressed to the House, shall be presented by the Speaker or a member in his place; a brief statement of the contents thereof shall verbally be made by the introducer, and shall be referred to the committee of his selection, unless otherwise ordered by the House.

34. A proposition requesting information from the Governor, Secretary or any other State officer, and all resolutions shall lie on the table one day for consideration, unless otherwise ordered by the House; and all such propositions shall be taken up for consideration in the order they were presented, immediately after the reports are called for from the Select Committee, and when adopted, the Clerk shall cause the same to be delivered.

35. Any five members, if the Speaker be in the Chair, shall be authorized to compel the attendance of absent members.

36. Upon calls of the House, or in taking the yeas and nays on any question, the names of the members shall be called alphabetically, except that "Mr. Speaker" shall be called last.

37. No member shall absent himself from the service of the House without leave unless he be sick or unable to attend.

38. Upon the call of the House, the names of the members shall be called by the Clerk, and the absentees noted, after which the names of the absentees shall again be called over, and the Sergeant-at-Arms be directed by the Speaker to compel their attendance. Any member occupying his seat during a call of the House shall be counted by the Speaker and his name entered in the Journal as being present but not voting, for the purpose of making a quorum.

39. No committee shall sit during the sitting of the House without special leave.

40. A majority of the members shall constitute a quorum, and upon demand of any two members the yeas and nays shall be ordered; the members demanding the yeas and nays shall arise for that purpose, and their names shall be entered in the Journal.

41. The hours to which this House shall stand adjourned from day to day shall be nine o'clock A.M., and two o'clock P.M. unless otherwise ordered by the House.

42. A committee on pairs shall be appointed, to consist of two persons, one of whom shall be selected by the members of each of the two dominant political parties represented in the House. It shall be the duty of the committee to arrange all pairs between members, and to announce such pairs and the time for which they shall continue, to the House, which announcement shall be entered on the Journal. Thereafter neither member so paired shall vote (upon any question of a political or partisan nature) until the time of pairing has expired, unless such pair is sooner dissolved by the mutual agreement of the persons so paired. When pairs are dissolved such dissolution shall be entered on the Journal of the House.

ON BILLS.

43. All bills and joint resolutions introduced in the House shall be typewritten, accompanied by a carbon duplicate; one copy shall be marked and known as the "original" and one

copy marked and designated as "printer's copy." The "original" shall, after registration, be subject to delivery to the chairman of the committee to which reference is made, unless otherwise ordered, and the "printer's copy" shall be delivered to the State Printer.

44. No bill carrying an appropriation shall be introduced after March 1, 1906, except by the Committee on Appropriations.

45. Every bill shall receive three several readings, but no bill shall have its second and third reading on the same day.

46. The first reading of the bill shall be for information; and if opposition be made to it, the question is: "Shall this bill be rejected?" If no opposition be made, or if the question to reject be negatived, the bill shall go to its second reading without a question.

47. Upon a second reading of a bill, the Speaker shall state that it is ready for commitment, amendment or engrossment; and if committed, then the question shall be whether to a select or a standing committee, or to a Committee of the Whole House. If to a Committee of the Whole House, the House shall determine on what day.

48. All bills to appropriate money shall be referred to the Appropriations Committee, and all bills pertaining to the levy, assessment or collection of taxes shall be referred to the Committee on Ways and Means.

49. After a bill has been committed and reported back it shall be considered on its second reading after the amendments of committee have been read.

50. After the commitment and report thereof to the House, or any time before its passage, a bill may be re-committed.

51. All bills ordered to be engrossed shall be written with typewriter with black record ribbon.

52. No amendment, unless by way of correcting an error or omission, shall be received to any bill on its third reading, and no debate shall be allowed on the same.

53. When a bill shall pass it shall be certified by the Clerk, noting the day of its passage at the foot thereof.

54. No standing rule or order of the House shall be rescinded or changed without one day's notice being given of the motion therefor, nor shall any rule be suspended except by a vote of at least two-thirds of the members present; nor shall the order of business, as established by the rules of the House, be postponed

or changed except by a vote of at least two-thirds of the members present.

55. It shall be the duty of the Committee on Enrolled Bills to report at any time.

56. All bills, memorials and joint resolutions shall be printed for the use and information of the members, unless otherwise ordered by the House.

57. When any matter is referred to a standing committee by motion of any member, it shall be the duty of the chairman of such standing committee to notify such member of the time of their sitting upon such matter referred, and such member shall be permitted to confer with such committee during their consideration of such matter, but no one not a member of the committee shall be present when the final vote is taken on any matter under consideration.

58. Each standing committee of the House shall classify all bills referred to it. The bills of the greatest public importance shall be placed in the first class, and all other bills in the second class. Bills of the first class shall be first considered and reported to the House and no committee shall retain possession of any bill longer than ten days, except by consent of the House. But this shall not apply to the Committee on Appropriations.

59. The rules of parliamentary practice comprised in Cushing's Manual shall govern the House in all cases where they are not inconsistent with the standing rules of this House and Joint Rules of both Houses.

60. Joint resolutions shall be framed and treated as a bill.

61. The chairman or clerk of a committee to which a bill is referred shall note thereon the date of its reference, and it shall be the duty of each committee to report back all bills in its hands within ten days after the order of reference, unless longer time is granted by a vote of the House. The minority of any committee may present its recommendations in writing with the report of the committee, and the same shall be printed in the Journal, and said recommendation may, by vote of the House, be substituted for the report of the committee. The clerks of the different committees shall be subject to their respective chairmen.

62. Seven members, or a majority, shall constitute a quorum of each standing committee.

63. When a committee is called the chairman of such committee shall be considered as having the floor until the next committee shall be called.

64. When the House reaches the order of the "Introduction of Bills" the roll shall be called, and each member in his order shall introduce such bills as he may desire.

65. No member or officer of the House shall be permitted to read newspapers within the bar of the House while the Journal is being read, nor shall any person be permitted to smoke on the floor of the House during its session, or in the galleries at any time.

66. No one shall be admitted to the floor of the House during its sessions, except members of the General Assembly and employees in the performance of their duties, ex-members of the General Assembly and officers of the State Government, Judges and ex-Judges of the Supreme, District and Circuit Courts, the families of members of the House, Trustees, Superintendents and officers of the State Institutions, on the invitation of the member from the district in which the institution is located, and each member shall have the right to admit a friend who may be visiting him. Representatives of the press to be admitted to the reporters' gallery.

DUTIES OF OFFICERS.

67. The Clerk of the House shall have charge of the Clerk's desk, and shall see that no one is permitted therein except himself and those assisting him. He shall be responsible for the custody and safe-keeping of all bills, resolutions and other matters laid before or introduced into the House, except while the same are in the possession of the committee to whom the same shall have been referred, and when delivering the same to said committee he shall take a proper receipt therefor. He shall see that the Journal of each day's proceedings is correctly and fully kept and fully made up before the next day's session, and be responsible for its safe-keeping. He shall have control of rooms four and five, which are assigned to said Clerk for the use of himself and his assistants. He shall endorse on every bill or joint or concurrent resolution, the date of its introduction and by what member, or of its receipt from the Senate, and also what action relating thereto is taken by the House. The assistant clerks shall be under his direction and he shall assign them their several duties in connection with the work of the Clerk's desk.

The Sergeant-at-Arms shall wear the appropriate badge of his office, shall attend the House during its sessions, shall aid during the enforcement of order, under the direction of the Speaker of the House, shall execute the commands of the House from time to time, together with such process, issued by the authority thereof, as shall be directed to him by the presiding officer; shall, upon request of any member, have the House lighted up during any evening within, the session except Sunday, to an hour not later than 10 P. M.; shall see that no person, except those authorized so to do, disturbs or interferes with the desks of the members, or with the books, papers, etc., thereat; shall see that the printed bills are properly distributed and filed upon the desks of the members, shall have charge of the files in the House bill room, and shall see that no copy of bill is given except to or upon the order of the Speaker of the House, or member, or State officer; shall see that an additional doorkeeper is detailed for duty at the House upon each day within the session, except Sunday, from 8:30 A. M. to 10:00 P. M.; but should no member of the House desire to occupy the chamber to that hour the detail may be relieved at 9:00 P. M.; shall have charge of the messengers of the House and see that they severally perform their duties, and shall promptly report to the Speaker of the House any inefficiency or violations of duty on the part of said messengers.

The Doorkeeper of the House shall wear his appropriate badge of office; shall have special charge of the main door of the chamber during the sittings of the House, and shall see that the other doors of the House are properly attended to; shall have general charge and oversight of the additional doorkeepers of the House; shall detail such of the additional doorkeepers for such general or special duties as the Sergeant-at-Arms may deem proper or necessary for the efficiency of the House and the protection of the property within the chamber; shall see that the rule relating to admission to the floor of the chamber is strictly enforced; shall, ten minutes before the opening of each session of the House, see that the floor is cleared of all persons not entitled to occupy the same during the session; shall attend to seating visitors, and shall announce all committees and messages from the Governor or Senate.

The Janitors of the House shall have charge, under the direction of the Sergeant-at-Arms, of the cloak and retiring rooms adjoining the chamber, and shall see that the same are kept in proper order.

The messengers of the House shall attend the House during its sittings and perform the duties generally devolving on like employees. The messengers shall be under the direction of the Sergeant-at-Arms while the House is not sitting, and shall attend to such duties as he may assign them.

OF COMMITTEE OF THE WHOLE HOUSE.

68. In forming Committee of the Whole House, the Speaker shall leave his chair, and a Chairman to preside in committee shall be appointed by the Speaker.

69. Upon bills committed to the Committee of the Whole House, the bill shall be first read throughout by the Clerk or Chairman, and then read again or debated by the clauses, leaving the preamble to be last considered. After report, the bill shall be again subject to be debated and amended by clauses before a question to engross it be taken.

70. All amendments made to an original motion in Committee shall be incorporated in a motion and so reported.

71. All amendments made to a report committed to a Committee of the Whole House shall be noted and reported as in the case of bills.

72. In filling up blanks in the Committee of the Whole House, and in the House, the largest sum and the longest time and the highest number shall be first put.

73. The Rules of the House shall be observed in Committee of the Whole House, so far as they are applicable.

JOINT RULES.

1. Whenever either House shall amend a measure, and the other House shall refuse to concur in and adopt the amendment, the House which has adopted such amendment shall either insist on or recede from the same. But when a measure originating in one House is amended in the other, the House in which it originated may amend such amendment, and a motion therefor shall take precedence of a motion to recede, and a motion to recede of a motion to insist. In case a motion to insist on the amendment be decided in the negative, such action shall be deemed a receding from the amendment, and so entered upon the Journal of the House. In case the amendment is insisted upon, the House so insisting shall request a Committee of Conference on the subject of disagreement, and shall appoint a committee therefor. The other House shall thereupon appoint such a committee. Unless another number is specified in said request, such Conference Committee shall consist of four members from each House. They shall meet at a convenient time, to be agreed upon by their chairman, and having conferred freely, each shall report to their respective House the result of their conference. In case of agreement, the report shall be first made, with the papers referred accompanying it, to the House which refused to concur, and there acted upon; and such action shall be immediately reported by the Secretary or Clerk to the other House, the papers referred accompanying the message. In case of disagreement of Conference Committee, the papers shall remain with the House which insisted on the amendment. The agreeing report of a Conference Committee shall be made, read and signed in duplicate by all the members of the Committee, or by a majority of those of each House, one of the duplicates being retained by the committee of each House. Should either House disagree to the report of the Committee, such House shall appoint a second Committee, and request a further conference, which shall be

acceded to by the other House before adhering. The motion for a Committee of Conference and the report of such Committee shall be in order at any time. When both Houses shall have adhered to their disagreement, a bill or motion is lost.

2. When a message shall be sent from either House to the other, it shall be announced at the door of the House to which it is sent by the doorkeeper thereof, and shall be respectfully communicated to the Chair by the person by whom it is sent.

3. All messages between the two Houses shall be communicated by the Secretary or Chief Clerk, or their respective assistants.

4. When a bill shall have passed both Houses, it shall be duly enrolled by the Enrolling Clerk of the House in which it originated, and the fact of its origin shall be certified by the endorsement of the Secretary or Clerk thereof.

5. When the bills are enrolled they shall be examined by a Joint Committee of two from the Senate and two from the House of Representatives, who shall be a Standing Committee for that purpose, and who shall carefully compare the enrollment with the engrossed bills, as passed in the Houses, correct any errors therein, and make report thereof forthwith to their respective Houses.

6. After the report, each bill shall be signed, first by the Speaker of the House of Representatives, and then by the President of the Senate, in the presence of their respective Houses.

7. After a bill shall have been thus signed in each House, it shall be forthwith presented, by Committee of the House in which the bill originated, to the Governor for his approval, and they shall forthwith report the date of presentation, which shall be entered upon the Journal of the House in which the bill originated.

8. All orders, resolutions, memorials or other votes, which are to be presented to the Governor for his approval, shall be enrolled, examined, signed and presented in the same manner as bills.

9. When any bill, resolution or memorial, which shall have passed in one House, is rejected or adopted in the other, notice of such action shall be given to the House which passed the same. And each bill, resolution or memorial shall have properly endorsed thereon, at the time of its transmission, a statement signed by the Secretary or Clerk of the action which has been

•

taken thereon by the House transmitting the same, with the dates thereof.

10 When a bill, resolution or memorial which shall have passed one House is rejected in the other, it shall not be again introduced during the session without five days' notice and leave of a majority of the members of the House in which the same is sought to be introduced.

11. Each House shall transmit to the other with any bill, resolution or memorial all papers upon which the same shall be founded.

12. When any report, bill or resolution shall be ordered printed by either House, without stating the number, three hundred copies shall be printed for the use of both Houses, but when any bill or resolution which may have passed one House is ordered printed by the other, a greater number of copies shall not be printed than the House making the order shall determine.

13. It shall be the duty of the Chief Clerk of the House of Representatives and the Secretary of the Senate, when any document, except bills and resolutions, is ordered to be printed in their respective Houses, forthwith to communicate such order to the other House.

14. In all elections in Joint Convention of the two Houses, the names of all members shall be arranged in alphabetical order, and they shall be called upon to vote in the order in which they stand arranged.

15. It shall be the duty of the Committee on Claims in each House to keep a book of record, in which shall be entered each claim for money against the State referred to them, whether presented in favor of private persons, or municipal or other corporations, entering therein the name of the claimant, the amount of the claim, the grounds therefor, with note of the evidence offered in support of the same, and the final conclusion of the Committee thereon. At the close of the session said book of record shall be deposited with the Auditor of State to be kept by him, and he shall provide an index, showing the names of the claimants recorded therein. At any subsequent session the same shall be delivered, when desired, to the like committee having jurisdiction of such claims, and shall always be open to the examination of the said Committee of either House.

REPRESENTATIVES

District	NAME	P. O. ADDRESS	COUNTIES IN DISTRICT	OCCUPATION	NATIVITY	Residence in House	Age
7	Bailey, M. Z	Diagonal	Ringgold	Farmer	Iowa	49	49
48	Bealer, E. J. C	Cedar Rapids	Linn	Contractor	Switzerland	50	60
68	Bixby, R. J	Edgewood	Delaware	Farmer and Stock	Iowa	51	51
40	Boland, Edward	Williamsburg	Iowa	Farmer	Ireland	37	64
77	Buckingham, F. N.	Alta	Buena Vista	Farmer	Illinois	20	48
43	Calderwood, M. H.	Eldridge	Scott	Banker	Iowa	42	42
20	Carden, William	Winfield	Henry	Real Estate and Loans	Iowa	40	40
45	Carstensen, Theo	Clinton	Clinton	Woodworker	Germany	23	36
19	Cassel, A. F	Lockridge, R. 1	Jefferson	Farmer	Sweden	60	74
78	Chassell, E. D	LeMars	Plymouth	Pub and Com Traveler	New York	38	47
82	Cheney, A. H	Spencer	Clay, Palo Alto	Implement Dealer	Vermont	40	67
63	Christianson, G. P.	Randall	Hamilton	Grain Dealer	Denmark	38	42
39	Clark, Elbert W*	Grinnell	Poweshiek	Physician & Surgeon	Vermont	40	63
36	Clarke, G. W	Adel	Dallas	Lawyer	Indiana	49	53
86	Clary, Tim C	New Hampton	Chickasaw	Lawyer	Wisconsin	33	43
8	Cobb, William	Bedford	Taylor	Minister & Farmer	Indiana	60	66
59	Coburn, Geo. F	Marcus	Cherokee	Farmer	Illinois	30	49
55	Colclo, C. C	Carroll	Carroll	Editor	Ohio	51	54
73	Conn, Stanley	Parkersburg	Butler	Farmer	Canada	49	50
9	Croze, Chas. F	Shenandoah	Page	Retired Merchant	Iowa	49	49
51	Cummings, B. F	Marshalltown	Marshall	Lawyer	New York	41	41

* Elected November 8, 1904, to fill vacancy caused by death of Thomas Harris.

16	Darrah, John H†	Chariton	Lucas	Merchant	Illinois	30	32
27	Dashiell, Mark A.	Indianola	Warren	Physician & Surgeon	Indiana	52	77
56	Davie, William A	Dunlap	Crawford	Farmer and Stock	Illinois	49	50
3	DeMar, John C**	Belknap	Davis	School Teacher	Iowa	26	26
53	Doran, Justin R.	Beaver	Boone	Farmer	New York	35	55
74	Dow, D. W.	Hampton	Franklin	Attorney	Michigan	46	70
37	English, Emory H.	Altoona	Polk	Editor & Publisher	Iowa	35	35
18	Epperson, F. M. ††	Eddyville	Wapello	Banker	Kentucky	45	64
70	Flenniken, J. C.	Strawberry Pt.	Clayton	Real Estate	Iowa	43	43
31	Freeman, W. H.	Oakland	Pottawattamie	Banker, Stock & Fmr	Illinois	40	61
69	Frudden, A. F.	Dubuque	Dubuque	Lumber Merchant	Germany	21	51
24	Geneva, Thomas	What Cheer	Keokuk	Merchant & Live Stock	England	44	48
52	Greeley, W. M.	Ames	Story	Banker	New York	40	65
28	Greene, Robert A	East Peru	Madison	Merchant	Iowa	40	40
13	Gregory, Ross H.	Nevinville	Adams	Physician	Illinois	12	35
76	Hakes, Montague	Laurens	Pocahontas	Merchant	Iowa	48	48
25	Hambleton, A. F. N.	Oskaloosa	Mahaska	Real Estate & Loans	Iowa	48	48
83	Hanna, George W.	Luverne	Kossuth	Banker & Farmer	Iowa	55	55
87	Hart, William S.	Waukon	Allamakee	Lawyer	Iowa	37	37
54	Head, Mahlon	Jefferson	Greene	Banker	Ohio	50	70
19	Heles, Philip	N Buena Vista R 2	Dubuque	Farmer	Iowa	45	45
29	Hollembeak, R. W.	Adair	Adair	Farmer	Illinois	30	54
90	Hume, Thomas H.	St. Ansgar	Mitchell	Lumber & Coal	Iowa	37	37
88	Jacobson, Abrah'm	Decorah R 1	Winneshiek	Farmer & Minister	Norway	55	70
58	Jepson, C. N.	Sioux City	Woodbury	Lawyer	Iowa	33	33
12	Jones, F. F.	Villisca	Montgomery	Banker & Merchant	New York	30	50
17	Kendall, N. E.	Albia	Monroe	Lawyer	Iowa	37	37
1	Kennedy, Chas. A	Montrose	Lee	Nurseryman	Iowa	36	36
32	Kling, H. B.	Woodbine	Harrison	Lumber and Banking	Wisconsin	28	60
41	Koolz, Geo. W.	Iowa City	Johson	Banker	Pennsylv'a	52	61
10	Laird, F. M.	Tabor	Fremont	Farmer	Iowa	50	50
45	Langan, Raym'nd C.	Clinton	Clinton	Attorney	Iowa	32	32
44	Leech, Louis J.	West Branch	Cedar	Physician & Surgeon	Ohio	50	59
65	Lister, John	Conrad	Grundy	Farmer and Stock	Illinois	32	51

†Elected November 7, 1905, to fill vacancy caused by removal of Eli Manning
**Elected October 17, 1905, to fill vacancy caused by death of T. J. Prevost
††Elected November 8, 1904, to fill vacancy caused by death of A. W. Buchanan.

District	NAME	P.O. ADDRESS	COUNTIES IN DISTRICT	OCCUPATION	NATIVITY	Years in Iowa	Age
61	Lowrey, Jason H.....	Pomeroy	Calhoun.....	Banker and Real Estate...	Illinois	37	55
50	Lundt J. F.....	Berlin	Tama.....	Farmer	Germany....	37	54
48	McAllister, John...	Cedar Rapids.....	Linn.....	Retired Farmer & Stock...	Ireland....	39	65
22	McClurkin, E. L.....	Morning Sun.....	Louisa.....	Banker and Farmer.....	Iowa.....	47	47
4	McCreary, Wm. M..	Centerville	Appanoose.....	Druggist and Banker.....	W. Virginia	49	67
5	McCulloch, Geo.....	Humeston	Wayne.....	Physician and Banker.....	Ohio.....	34	57
46	McDole, Albert E....	Sabula.....	Jackson.....	Lumber and Stock.....	New York..	52	55
58	McElrath, Wm. W....	Moville.....	Woodbury.....	Farmer and Banker.....	New York..	24	56
49	McNie, Malcolm F....	Vinton	Benton.....	Farmer and Banker..	New York..	49	57
92	Maben, O. K.....	Forest City.....	Hancock, Humboldt...	Farmer.....	Iowa.....	37	37
31	Martin, Robert J....	Hancock	Pottawattamie.....	Merchant and Implements.	Canada....	34	42
60	Mattes, Joseph.....	Odebolt	Sac	Hardware Merchant.....	Iowa	50	50
30	Meredith, C. A.**	Atlantic.....	Cass	Lawyer	Iowa.....	42	42
79	Morris, James F....	Ireton.....	Sioux.....	Farmer and Stock	Illinois....	50	51
34	Mott, D. C.....	Audubon.....	Audubon.....	Editor.....	Ohio.....	43	47
42	Nichols, J. I.....	West Liberty	Muscatine.....	Farmer.....	Iowa.....	50	50
38	Offill, John F.....	Prairie City.....	Jasper.....	Farmer and Stock.....	Kentucky..	38	60
91	Olson, H. L.....	Northwood.....	Winnebago, Worth...	Farmer.....	Norway....	49	60
47	Peet, R. M.....	Springville.....	Jones.....	Farmer and Stock.....	Iowa.....	49	49
85	Powers, P. H.....	Powersville.....	Floyd.....	Farmer & Manufacturer...	Canada....	38	65
75	Pritchard, J. S.....	Belmond.....	Wright	Farmer.....	Michigan...	49	58
21	Ritter, Henry	Burlington	Des Moines.....	Brick Manufacturer.....	Iowa.....	53	53
93	Robinson, B. F.....	Armstrong.....	Dickinson, Emmet...	Banker.....	Connectic't.	36	56
6	Sankey, E. J.....	Leon.....	Decatur.....	Farmer, Rl Est. & Lns....	Pennsylv'a.	56	62
72	Saylor, W. W.....	Waverly	Bremer.....	Travel'g L'mb'r Aud.....	Pennsylv'a.	44	46
71	Shaffer, J. D.....	Elgin, R. I.....	Fayette.....	Farmer ..	Iowa.....	47	47
14	Skinner, Scott.....	Creston.....	Union.....	Railway Engineer.....	Iowa.....	53	53
89	Spaulding, H. L.....	Elma.....	Howard.....	Attorney.....	New Hamp.	36	42
67	Springer, L. F.....	Independence.....	Buchanan.....	Lawyer ..	Pennsylv'a.	26	53
84	Stanbery, John S....	Mason City.....	Cerro Gordo.....	Lawyer.....	Ohio.....	50	59
43	Stoltenberg, A. H....	Davenport.....	Scott.....	Manufacturer & Banker...	Iowa	42	42
2	Summers, L. F.....	Milton.....	Van Buren.....	Physician & Druggist....	Missouri....	33	57

37	Teachout, H E	Des Moines	Polk	Banker & Ice Dealer	New York	60
35	Temple, M. L.	Osceola	Clarke	Lawyer	W. Virginia	32
26	Teter, Lorenzo D.	Knoxville	Marion	Lawyer	Iowa	35
81	Van Eaton, G. L. †	Little Rock	Lyon, Osceola	Real Estate & Ins.	Indiana	33
11	Washburn, A. B.	Hastings	Mills	Farmer	Iowa	36
35	Weeks, Elbert W.	Guthrie Center	Guthrie	Lawyer	Ohio	55
64	WILSON, Wm. W.	Iowa Falls	Hardin	Merchant	Wisconsin	60
57	Whiting, W. C.	Whiting	Monona, Ida.	Lbr. & Imp. Dealer	Iowa	48
80	Whitmer, G. R. ††	Primhar	O'Brien	Banker	Iowa	40
23	Wilson, H. H.	Wellman	Washington	Retired Farmer	Germany	51
65	Wise, Charles A.	Cedar Falls	Black Hawk	Banker	England	48
62	Wright, Robert M.	Ft. Dodge	Webster	Attorney	Indiana	29
33	Wyland, O P	Harlan	Shelby	Real Estate	Iowa	49

Republicans in roman—72 Democrats in italics—20 Independent Republicans in small capitals—8

in politics

on Citizens ticket. 17 Republican
L. DeLano.

ADDITIONAL INFORMATION.

OFFICERS OF THE HOUSE.

Office.	Officer.	Post office	Occupation.	Nativity.	Age.	Years in Iowa.	Military Service.	Married or Single.	City Residence.
File Clerk.	Geo. W. Clark.	Adel..	Lawyer	Indiana.	53	40	.....	Married	.....
	B. F. Cummings	.....	Lawyer	N. Y.	41	41	.....	Married	.....
	C. R. Benedict.	.....	Real Est. Dealer.	Penn.	52	30	.....	Married	.....
	W. C. Ramsey	.....	Editor and Pub.	Illinois.	50	13	.....	Married	.....
	A. E. Kephord.	.....	Minister.	Iowa.	33	31	.....	Married	.....
	Harry E. Griffin	.....	Printer.	Iowa.	33	28	.....	Married	.....
	Ralph H. Clook.	.....	Lawyer	Iowa.	37	27	.....	Single.	1008 Seventh Str.
	Mrs. Mollie Heist	.....	.....	Iowa.	43	43	.....	Widow.	1819 W. Ninth Str.
	Walt. P. McCulla	.....	Lawyer	Iowa.	39	39	60th Iowa	Single.	1311 E. Grand Ave.
	Hester Runyan.	.....	Lawyer	Iowa.	33	27	.....	Single.	.....
	J. Redefinger.	Odebolt	Milliner	Penn.	53	27	143rd Illinois.	Wid'wer	.....
	A. M. May	Grundy Center	Ins. Agent.	Penn.	55	33	Co. B 40th Wisconsin	Married	.....
	T. J. Alexander	Waukon.	Ex. Ed. and Pub.	N. Y.	55	33	Fifth Wisconsin.	Married	.....
	B. S. Record	Winterset.	Abstractor.	Indiana.	50	45	.....	Married	745 h. Locust Str.
Am't File Clerk.	Thos. M. Pace.	Woodward.	Real Est. Dealer.	Penn.	44	24	{ 1st Indiana Cavalry	Married	220 Church Str
Speaker's Clerk	B. C. Darrin.	Shenandoah.	Retired.	Ky.	74	33	{ 10th Ind. Cavalry.	Single.	1449 Capitol Ave.
Chief Doorkeeper.	J. B. Lewis.	Villmoor	Bank Clerk.	Iowa.	24	24	.....	Married	Wellington.
		Spencer	Retired.	England	59	41	.....	.....	.....

STANDING COMMITTEES OF THE HOUSE.

WAYS AND MEANS.

Temple of Clarke,
Head of Greene,
English of Polk,
Cummings of Marshall,
Kendall of Monroe,
Carden of Henry,
Bealer of Linn,
Greene of Madison,
Freeman of Pottawattamie,
McClurkin of Louisa,
Flenniken of Clayton,
Cheney of Clay,
Kling of Harrison,
Pritchard of Wright,
Powers of Floyd,
Bailey of Ringgold,
Geneva of Keokuk,

Robinson of Emmet,
Crose of Page,
Stoltenberg of Scott,
Buckingham of Buena Vista
Shaffer of Fayette,
Summers of Van Buren,
Mott of Audubon,
Carstensen of Clinton,
Cobb of Taylor,
Clark of Poweshiek,
Epperson of Wapello,
Darrah of Lucas,
Van Eaton of Lyon,
Whiting of Monona,
Ritter of Des Moines,
Hakes of Pocahontas,
Laird of Fremont.

JUDICIARY.

Kendall of Monroe,
Temple of Clarke,
Cummings of Marshall,
Wright of Webster,
Jepson of Woodbury,
Hart of Allamakee,
Spaulding of Howard,
Teter of Marion,
Weeks of Guthrie,
Stanbery of Cerro Gordo,
Dow of Franklin,
Meredith of Cass,

Springer of Buchanan,
Langan of Clinton,
Clary of Chickasaw,
Teachout of Polk,
Greeley of Story
Wise of Black Hawk,
Kling of Harrison,
Robinson of Emmet,
Chassell of Plymouth,
Hambleton of Mahaska
Koontz of Johnson.

APPROPRIATIONS.

Mattes of Sac,
 Robinson of Emmet,
 Flenniken of Clayton,
 Head of Greene,
 Bealer of Linn,
 Christianson of Hamilton,
 Leech of Cedar,
 Powers of Floyd,
 Chassell of Plymouth,
 Wright of Webster,
 Jones of Montgomery,
 Weeks of Guthrie,
 McElrath of Woodbury,
 Bixby of Delaware,
 Darrah of Lucas,
 Colclo of Carroll,

Hannah of Kossuth,
 Maben of Hancock,
 Boland of Iowa,
 Stanbery of Cerro Gordo,
 Hume of Mitchell,
 Dashiell of Warren,
 Mott of Audubon,
 Hollembeak of Adair,
 McCulloch of Wayne,
 Gregory of Adams,
 Morris of Sioux,
 Jacobson of Winneshiek,
 Meredith of Cass,
 Epperson of Wappello,
 Frudden of Dubuque.

RAILROADS AND COMMERCE.

Wise of Black Hawk,
 Cummings of Marshall,
 Bealer of Linn,
 English of Polk,
 Calderwood of Scott,
 Christianson of Hamilton,
 Nichols of Muscatine,
 Greeley of Story,
 Pritchard of Wright,
 Coburn of Cherokee,
 McNie of Benton,
 Cassel of Jefferson,
 Weldon of Hardin,
 Weeks of Guthrie,
 Hart of Allamakee,
 Lowrey of Calhoun,
 Martin of Pottawattamie,

Conn of Butler,
 Lister of Grundy,
 Jones of Montgomery,
 Doran of Boone,
 Skinner of Union,
 Hambleton of Mahaska,
 McCulloch of Wayne,
 McDole Jackson,
 Kennedy of Lee,
 Washburn of Mills,
 Mattes of Sac,
 Saylor of Bremer,
 Van Eaton of Lyon,
 Wyland of Shelby,
 Willson of Washington,
 Lundt of Tama,
 DeMar of Davis.

BANKS AND BANKING.

Head of Greene,
 Greeley of Story,
 Wise of Black Hawk,
 Teachout of Polk,
 McClurkin of Louisa,
 Calderwood of Scott,
 Robinson of Emmet,
 Freeman of Pottawattamie,
 Christianson of Hamilton,
 McNie of Benton,
 Greene of Madison,
 Cheney of Clay,
 Jones of Montgomery,
 Jepson of Woodbury,

Lowrey of Calhoun,
 Crose of Page,
 Martin of Pottawattamie,
 Saylor of Bremer,
 Epperson of Wapello,
 Clark of Poweshiek,
 Koontz of Johnson,
 Whiting of Monona,
 McCreary of Appanoose,
 Clary of Chickasaw,
 Sankey of Decatur,
 Hakes of Pocahontas,
 Hanna of Kossuth.

INSURANCE.

English of Polk,
Temple of Clarke,
Kendall of Monroe,
Flenniken of Clayton,
Bailey of Ringgold,
Carden of Henry,
Chassell of Plymouth,
Robinson of Emmet,
Lowrey of Calhoun,
Stoltenberg of Scott,
Welden of Hardin
McElrath of Woodbury,
Teter of Marion,

Lister of Grundy,
Skinner of Union,
Morris of Sioux,
Hollembek of Adair,
Boland of Iowa,
McCulloch of Wayne,
Springer of Buchanan
Whiting of Monona,
Clary of Chickasaw,
Geneva of Keokuk,
Ritter of Des Moines,
Heles of Dubuque.

AGRICULTURE.

Pritchard of Wright,
Nichols of Muscatine,
Bailey of Ringgold,
Cassel of Jefferson,
McElrath of Woodbury,
Robinson of Emmet,
Buckingham of Buena Vista,
Bixby of Delaware,
Hollembek of Adair,
McAllister of Linn,
McElrath of Woodbury.
Stoltenberg of Scott,
Lowrey of Calhoun,
Lister of Grundy,
Morris of Sioux,
Shaffer of Fayette,
Boland of Iowa,
Lundt of Tama,

Maben of Hancock,
Doran of Boone,
Cobb of Taylor,
Conn of Butler,
Offill of Jasper,
Washburn of Mills,
McDole of Jackson,
Jacobson of Winneshiek,
Olson of Worth,
Spaulding of Howard,
Wright of Webster,
Cummings of Marshall,
Peet of Jones
Davie of Crawford,
Heles of Dubuque,
Laird of Fremont,
Willson of Washington.

SCHOOLS AND TEXT-BOOKS.

Jepson of Woodbury,
Leech of Cedar,
Powers of Floyd,
Stanbery of Cerro Gordo,
Bixby of Delaware,
McAllister of Linn,
Hambleton of Mahaska,
Teter of Marion,
Dashiell of Warren,
Gregory of Adams,
Lundt of Tama,

Croze of Page,
Van Eaton of Lyon,
Lister of Grundy,
Kennedy of Lee,
Clark of Poweshiek,
Colclo of Carroll,
Langan of Clinton,
Sankey of Decatur,
Heles of Dubuque,
Davie of Crawford,
DeMar of Davis.

MINES AND MINING.

Hambleton of Mohaska,
Kendall of Monroe,
Offill of Jasper,
McElrath of Woodbury,
Spaulding of Howard,
Buckingham of Buena Vista,

Carstenson of Clinton,
Epperson of Wapello,
McCreary of Appanoose,
Peet of Jones,
Ritter of Des Moines,
Laird of Fremont,
Davie of Crawford.

MUNICIPAL CORPORATIONS.

Teachout of Polk,
Bealer of Linn,
Carden of Henry,
Leech of Cedar,
Nicol of Muscatine,
McClurkin of Louisa,
Kling of Harrison,
Skinner of Union,
Wright of Webster,
McAllister of Linn,
Martin of Pottawattamie,
Jepson of Woodberry,
Saylor of Bremer,
Dow of Franklin,
Laird of Fremont,

Buckingham of Buena Vista,
Lister of Grundy,
McDole of Jackson,
Darrah of Lucas,
Meredith of Cass,
Epperson of Wapello,
Koontz of Johnson,
Langan of Clinton,
Frudden Dubuque,
Springer of Buchanan,
Colclo of Carroll,
McCreary of Appanoose,
Peet of Jones,
Ritter of Des Moines,
Wyland of Shelby.

TELEGRAPH, TELEPHONE AND EXPRESS.

Coburn of Cherokee,
Mattes of Sac,
Greene of Madison,
Kendall of Monroe,
Christianson of Hamilton
Pritchard of Wright,
Weeks of Guthrie,
Hart of Allamakee,
Stoltenberg of Scott,
Chassell of Plymouth,
McAllister of Linn,

Teter of Marion,
Welden of Hardin,
Martin of Pottawattamie,
Lowrey of Calhoun,
Buckingham of Buena Vista,
Maben of Hancock,
Morris of Sioux,
Boland of Iowa,
Whiting of Monona,
Clary of Chickasaw.

PARDONS.

Cummings of Marshall,
Teachout of Polk,
Nichols of Muscatine,
Kling of Harrison,
Jepson of Woodbury,
Weeks of Guthrie,
Hanna of Kossuth,
Maben of Hancock,
McCulloch of Wayne,
Morris of Sioux,

Skinner of Union,
Hume of Mitchell,
Dow of Franklin,
Meredith of Cass,
Springer of Buchanan,
Frudden of Dubuque,
Koontz of Johnson,
Ritter of Des Moines,
Wyland of Shelby.

LABOR.

Calderwood of Scott,
Cheney of Clay,
Kendall of Monroe,
Freeman of Pottawattamie,
Bailey of Ringgold,
Carstensen of Clinton,
Spaulding of Howard,
Stoltenberg of Scott,
Doran of Boone,

Maben of Hancock,
Offill of Jasper,
Washburn of Mills,
Saylor of Bremer,
Olson of Worth,
Whiting of Monona,
McCleary of Appanoose,
Ritter of Des Moines,
Davie of Crawford.

ELECTIONS.

Flenniken of Clayton,
Head of Greene,
Greene of Madison,
English of Polk,
Kling of Harrison,
Cummings of Marshall,
Greeley of Story,
Pritchard of Wright,
Freeman of Pottawattamie,

Christianson of Hamilton,
Leech of Cedar,
Nichols of Muscatine,
Mott of Audubon,
Langan of Clinton,
Clary of Chickasaw,
Wyland of Shelby.

PUBLIC HEALTH.

Leach of Cedar,
Dashiell of Warren,
Gregory of Adams,
McCulloch of Wayne,
Summers of Van Buren,
Clark of Poweshiek,
Flenniken of Clayton,
Spaulding of Howard,

Croze of Page,
Bixby of Delaware,
Mott of Audubon,
McDole of Jackson,
Clary of Chickasaw,
Kling of Harrison,
Heles of Dubuque,
Peet of Jones.

ROADS AND HIGHWAYS.

Bailey of Ringgold,
Coburn of Cherokee,
Cassel of Jefferson,
Powers of Floyd,
Cheney of Clay,
Head of Greene,
Christianson of Hamilton,
Weeks of Guthrie,
Hart of Allamakee,
Carstensen of Clinton,
McAllister of Linn,
Morris of Sioux,
Cobb of Taylor,
Kennedy of Lee,

Doran of Boone,
Conn of Butler,
Shaffer of Fayette,
Lister of Grundy,
Jacobson of Winneshiek,
Darrah of Lucas,
Colclo of Carroll,
Peet of Jones,
Geneva of Keokuk,
Laird of Fremont,
Davie of Crawford,
Lundt of Tama,
Hakes of Pocahontas,
Heles of Dubuque.

PUBLIC LANDS AND BUILDINGS.

Croce of Page,
Calderwood of Scott,
Boland of Iowa,
Carstensen of Clinton,
Saylor of Bremer,
Sankey of Decatur,

Wise of Black Hawk,
Dashiell of Warren,
Conn of Butler,
Shaffer of Fayette,
Willson of Washington.

SUPPRESSION OF INTEMPERANCE.

Greeley of Story,
Leech of Cedar
McClurkin of Louisa,
Pritchard of Wright,
Wright of Webster,
Chassell of Plymouth,
Jones of Montgomery,
Stanbery of Cerro Gordo
Conn of Butler,

Shaffer of Fayette,
Cobb of Taylor,
Jacobson of Winneshiek,
McAllister of Linn,
Weeks of Guthrie,
Koontz of Johnson,
Hakes of Pocahontas,
Lundt of Tama,
DeMar of Davis

CONSTITUTIONAL AMENDMENTS.

Wright of Webster,
Temple of Clarke,
Mattes of Sac,
English of Polk,
Head of Greene,
Flenniken of Clayton,
Kling of Harrison,
Bealer of Linn,
Cassel of Jefferson,

Dashiell of Warren,
Hambleton of Mahaska,
Lowrey of Calhoun,
Maben of Hancock,
Darrah of Lucas,
Colclo of Carroll,
Whiting of Monona,
Springer of Buchanan,
Langan of Clinton.

PUBLIC LIBRARIES.

Koontz of Johnson,
Wise of Black Hawk,
Temple of Clark,
Summers of Van Buren,
Jepson of Woodbury,
Hollenbeak of Adair,
Spaulding of Howard,

Boland of Iowa,
Saylor of Bremer,
McDole of Jackson,
McCreary of Appanoose,
Ritter of Des Moines,
Sankey of Decatur.

PRINTING.

Chassell of Plymouth,
English of Polk,
Kling of Harrison,
McNie of Benton,
Pritchard of Wright,
Carden of Henry,
Leach of Cedar,
Teachout of Polk,
Coburn of Cherokee,

Mott of Audubon,
Croce of Page,
Summers of Van Buren
Dow of Franklin,
Gregory of Adams,
Skinner of Union,
Colclo of Carroll,
Springer of Buchanan,
McClurkin of Louisa.

STATE UNIVERSITY.

Carden of Henry,
Koontz of Johnson,
Greene of Madison,
Christianson of Hamilton
Spaulding of Howard,
Gregory of Adams,

Hanna of Kossuth,
Boland of Iowa,
Saylor of Bremer,
Bixby of Delaware,
Hume of Mitchell,
Epperson of Wapello,
Whiting of Monona.

AGRICULTURAL COLLEGE.

McClurkin of Louisa,
Greeley of Story,
Bailey of Ringgold,
Hart of Allamakee,
Welden of Hardin,
Martin of Pottawattamie,

Offill of Jasper,
McCulloch of Wayne,
Olson of Worth,
Van Eaton of Lyon,
Frudden of Dubuque,
Hakes of Pochontas.

COMPENSATION OF PUBLIC OFFICERS.

Bealer of Linn,
Calderwood of Scott,
Freeman of Pottawattamie,
McDole of Jackson,
Hume of Mitchell,
Skinner of Union,
Hanna of Kossuth,

Cartensen of Clinton,
Washburn of Mills,
Summers of Van Buren
Darrah of Lucas,
Frudden of Dubuque,
Laird of Fremont,
DeMar of Davis.

CLAIMS.

McNie of Benton,
Cheney of Clay,
Teter of Marion,
Washburn of Mills,
Maben of Hancock,
Lister of Grundy,

Morris of Sioux,
Olson of Worth,
Epperson of Wapello,
Wyland of Shelby,
Hakes of Pocahontas,
Davie of Crawford,
Willson of Washington,

NORMAL SCHOOLS.

Robinson of Emmet,
Wise of Black Hawk,
Mattes of Sac,
Dow of Franklin,
Hollenbeak of Adair,
Skinner of Union,

Shaffer of Fayette,
Hambleton of Mahaska,
Conn of Butler,
Jacobson of Winneshiek,
Geneva of Keokuk,
McCreary of Appanoose.

PRIVATE CORPORATIONS.

Christianson of Hamilton,
 Mattes of Sac,
 Bailey of Ringgold,
 Greene of Madison,
 McAllister of Linn,
 Stanbery of Cerro Gordo,

Stoltenberg of Scott,
 Dashiell of Warren,
 Summers of Van Buren,
 Clark of Poweshiek,
 Clary of Chickasaw,
 Geneva of Keokuk.

DOMESTIC MANUFACTURES.

Powers of Floyd,
 Cheney of Clay,
 Stoltenberg of Scott,
 Welden of Hardin,
 Stanbery of Cerro Gordo,
 Cartensen of Clinton,

Lister of Grundy,
 Kennedy of Lee,
 Washburn of Mills,
 Sankey of Decatur,
 McElrath of Woodbury,
 Heles of Dubuque.

HORTICULTURE.

Hollembeck of Adair,
 Calderwood of Scott,
 Cassel of Jefferson,
 Shaffer of Fayette,
 Conn of Butler,

Kennedy of Lee,
 Washburn of Mills,
 Willson of Washington,
 Geneva of Keokuk,
 Peet of Jones.

PHARMACY.

Dashiell of Warren,
 Gregory of Adams,
 Nichols of Muscatine,
 Kendall of Monroe,
 Coburn of Cherokee,
 Leech of Cedar,
 Flenniken of Clayton,
 Robinson of Emmet,

McClurkin of Louisa,
 Lowrey of Calhoun,
 Doran of Boone,
 Maben of Hancock,
 Buckingham of Buena Vista,
 Morris of Sioux,
 McDole of Jackson,
 Wyland of Shelby.

BUILDING AND LOAN.

Kling of Harrison,
 Powers of Floyd,
 Cassel of Jackson,
 Teter of Marion,
 Stoltenberg of Scott,

Lowrey of Calhoun,
 Clark of Poweshiek,
 Whiting of Monona,
 Wyland of Shelby.

FEDERAL RELATIONS.

Weeks of Guthrie,
 Temple of Clarke,
 Wise of Black Hawk,
 Wright of Webster,
 Crose of Page,

Jones of Montgomery,
 Mott of Audubon,
 Frudden of Dubuque,
 Sankey of Decatur.

WOMAN SUFFRAGE.

Cheney of Clay,
Coburn of Cherokee,
Greene of Madison,
Powers of Floyd,
Nichols of Muscatine,
Morris of Sioux,

Boland of Iowa,
Cobb of Taylor,
Wyland of Shelby,
Laird of Fremont,
Heles of Dubuque.

HOSPITAL FOR INSANE.

Springer of Buchanan,
Carden of Henry,
Coburn of Cherokee,
Croze of Page,
Christianson of Hamilton,

Gregory of Adams,
Doran of Boone,
Hume of Mitchell,
Meredith of Cass,
Frudden of Dubuque.

INSTITUTE FOR FEEBLE-MINDED.

Washburn of Mills,
Bailey of Ringgold,
Teter of Marion,
Summers of Van Buren,

McCulloch of Wayne,
Van Eaton of Lyon,
Sankey of Decatur,
Wyland of Shelby.

INSTITUTE FOR DEAF.

Martin of Pottawattamie,
Powers of Floyd,
Bealer of Linn,
Wright of Webster,

McAllister of Linn,
Meredith of Cass,
Geneva of Keokuk,
Van Eaton of Lyon.

COLLEGE FOR THE BLIND.

Shaffer of Fayette,
McNie of Benton,
Dow of Franklin,
Hanna of Kossuth,

Whiting of Monona,
Willson of Washington,
Laird of Fremont,
Carstensen of Clinton

INDUSTRIAL SCHOOLS.

Mott of Audubon,
Teachout of Polk,
Freeman of Pottawattamie,
Welden of Hardin,

Jones of Montgomery,
Cobb of Taylor,
Langan of Clinton,
Lundt of Tama.

SOLDIERS' AND ORPHANS' HOME.

Nichols of Muscatine,
Cummings of Marshall,
Calderwood of Scott,
Cobb of Taylor,

Offill of Jasper,
Olson of Worth,
Clary of Chickasaw,
Davie of Crawford.

PENITENTIARIES.

Jones of Montgomery,
Temple of Clarke,
Teter of Marion,
Bixby of Delaware,
Kennedy of Lee,

Olson of Worth,
Jacobson of Winneshiek,
Peet of Jones,
De Mar of Davis,
Offill of Jasper.

PRIVATE CORPORATIONS.

Christianson of Hamilton,
 Mattes of Sac,
 Bailey of Ringgold,
 Greene of Madison,
 McAllister of Linn,
 Stanbery of Cerro Gordo,

Stoltenberg of Scott,
 Dashiell of Warren,
 Summers of Van Buren,
 Clark of Poweshiek,
 Clary of Chickasaw,
 Geneva of Keokuk.

DOMESTIC MANUFACTURES.

Powers of Floyd,
 Cheney of Clay,
 Stoltenberg of Scott,
 Welden of Hardin,
 Stanbery of Cerro Gordo,
 Cartensen of Clinton,

Lister of Grundy,
 Kennedy of Lee,
 Washburn of Mills,
 Sankey of Decatur,
 McElrath of Woodbury,
 Heles of Dubuque.

HORTICULTURE.

Hollembeck of Adair,
 Calderwood of Scott,
 Cassel of Jefferson,
 Shaffer of Fayette,
 Conn of Butler,

Kennedy of Lee,
 Washburn of Mills,
 Willson of Washington,
 Geneva of Keokuk,
 Peet of Jones.

PHARMACY.

Dashiell of Warren,
 Gregory of Adams,
 Nichols of Muscatine,
 Kendall of Monroe,
 Coburn of Cherokee,
 Leech of Cedar,
 Flenniken of Clayton,
 Robinson of Emmet,

McClurkin of Louisa,
 Lowrey of Calhoun,
 Doran of Boone,
 Maben of Hancock,
 Buckingham of Buena Vista,
 Morris of Sioux,
 McDole of Jackson,
 Wyland of Shelby.

BUILDING AND LOAN.

Kling of Harrison,
 Powers of Floyd,
 Cassel of Jackson,
 Teter of Marion,
 Stoltenberg of Scott,

Lowrey of Calhoun,
 Clark of Poweshiek,
 Whiting of Monona,
 Wyland of Shelby.

FEDERAL RELATIONS.

Weeks of Guthrie,
 Temple of Clarke,
 Wise of Black Hawk,
 Wright of Webster,
 Crose of Page,

Jones of Montgomery,
 Mott of Audubon,
 Frudden of Dubuque,
 Sankey of Decatur.

WOMAN SUFFRAGE.

Cheney of Clay,
Coburn of Cherokee,
Greene of Madison,
Powers of Floyd,
Nichols of Muscatine,
Morris of Sioux,

Boland of Iowa,
Cobb of Taylor,
Wyland of Shelby,
Laird of Fremont,
Heles of Dubuque.

HOSPITAL FOR INSANE.

Springer of Buchanan,
Carden of Henry,
Coburn of Cherokee,
Croze of Page,
Christianson of Hamilton,

Gregory of Adams,
Doran of Boone,
Hume of Mitchell,
Meredith of Cass,
Frudden of Dubuque.

INSTITUTE FOR FEEBLE-MINDED.

Washburn of Mills,
Bailey of Ringgold,
Teter of Marion,
Summers of Van Buren,

McCulloch of Wayne,
Van Eaton of Lyon,
Sankey of Decatur,
Wyland of Shelby.

INSTITUTE FOR DEAF.

Martin of Pottawattamie,
Powers of Floyd,
Bealer of Linn,
Wright of Webster,

McAllister of Linn,
Meredith of Cass,
Geneva of Keokuk,
Van Eaton of Lyon.

COLLEGE FOR THE BLIND.

Shaffer of Fayette,
McNie of Benton,
Dow of Franklin,
Hanna of Kossuth,

Whiting of Monona,
Willson of Washington,
Laird of Fremont,
Carstensen of Clinton

INDUSTRIAL SCHOOLS.

Mott of Audubon,
Teachout of Polk,
Freeman of Pottawattamie,
Welden of Hardin,

Jones of Montgomery,
Cobb of Taylor,
Langan of Clinton,
Lundt of Tama.

SOLDIERS' AND ORPHANS' HOME.

Nichols of Muscatine,
Cummings of Marshall,
Calderwood of Scott,
Cobb of Taylor,

Offill of Jasper,
Olson of Worth,
Clary of Chickasaw,
Davie of Crawford.

PENITENTIARIES.

Jones of Montgomery,
Temple of Clarke,
Teter of Marion,
Bixby of Delaware,
Kennedy of Lee,

Olson of Worth,
Jacobson of Winneshiek,
Peet of Jones,
De Mar of Davis,
Offill of Jasper.

ANIMAL INDUSTRY.

Doran of Boone,
Cassel of Jefferson,
Buckingham of Buena Vista,
McElrath of Woodbury,
Lundt of Tama.

Bixby of Delaware,
Offill of Jasper,
Peet of Jones,
Davie of Crawford

MILITARY.

Hart of Allamakee,
Head of Greene,
Cheney of Clay,
Greeley of Story,
Leech of Cedar,
Bealer of Linn,
Pritchard of Wright,
McAllister of Linn.

Dow of Franklin,
Weldon of Hardin,
Offill of Jasper,
Olson of Worth,
Cobb of Taylor,
Sankey of Decatur,
McCreary of Appanoose.

POLICE REGULATIONS.

Skinner of Union,
Teachout of Polk,
Freeman of Pottawattamie,
Stanbery of Cerro Gordo,
McElrath of Woodbury.

McCulloch of Wayne,
Cartensen of Clinton,
Koontz of Johnson,
De Mar of Davis.

FISH AND GAME.

Hanna of Kossuth,
Mattes of Sac,
Coburn of Cherokee,
Hart of Allamakee,
McDole of Jackson,
Jacobson of Winneshiek.

Kennedy of Lee,
Bixby of Delaware,
Buckingham of Buena Vista,
Springer of Buchanan,
Colclo of Carroll.

ENROLLED BILLS.

Spaulding of Howard,
Flenniken of Clayton,
Calderwood of Scott,
Carden of Henry,
Jepson of Woodbury,

Bixby of Delaware.
Martin of Pottawattamie,
Frudden of Dubuque,
Willson of Washington.

COUNTY AND TOWNSHIP ORGANIZATION.

Cassel of Jefferson,
McNie of Benton,
Hollembek of Adair,
Hanna of Kossuth,
Kennedy of Lee,

Shaffer of Fayette,
Conn of Butler,
Olson of Worth,
Davie of Crawford,
Heles of Dubuque.

PUBLIC CHARITIES.

Freeman of Pottawattamie,
McNie of Benton,
Stoltenberg of Scott,
Saylor of Bremer,
Hanna of Kossuth,

Hume of Mitchell,
Summers of Van Buren,
Hambleton of Mahaska
Jones of Montgomery.

SENATORIAL DISTRICTS.

Teter of Marion,
Nichols of Muscatine,
Mattes of Sac,
McElrath of Woodbury,
Doran of Boone,
Jacobson of Winneshiek,
Hakes of Pocahontas,

Clark of Poweshiek,
McCulloch of Wayne,
Summers of Van Buren,
Epperson of Wapello,
Colcle of Carroll,
Geneva of Keokuk.

REPRESENTATIVE DISTRICTS.

Maben of Hancock,
English of Polk,
Flerziken of Clayton,
Stanbery of Cerro Gordo,
Mott of Audubon,
Martin of Pottawattamie,
Jepson of Woodbury,
Peet of Jones,

Van Eaton of Lyon,
Hollembek of Adair
Darrah of Lucas,
Whiting of Monona,
Ritter of Des Moines,
Lundt of Tama,
Wyland of Shelby.

CONGRESSIONAL DISTRICTS.

Greene of Madison,
McClurkin of Louisa,
Greeley of Story,
Welden of Hardin,
Wright of Webster,
Dashiell of Warren,
Chassell of Plymouth,
Hart of Allamakee,

Hume of Mitchell,
Hanna of Kossuth,
Dow of Franklin,
Olson of Worth,
Jones of Montgomery,
McDole of Jackson,
McCreary of Appanoose.

JUDICIAL DISTRICTS.

Kennedy of Lee,
Temple of Clarke,
Bealer of Linn,
Cummings of Marshall,
Carden of Henry,
Freeman of Pottawattamie,
Head of Greene,

McNie of Benton,
Gregory of Adams,
Offill of Jasper,
Laird of Fremont,
Meredith of Cass,
Willson of Washington.

ENGROSSED BILLS.

Carstenson of Clinton,
English of Polk,
Robinson of Emmet,
Wise of Black Hawk,

Saylor of Bremer,
Langan of Clinton,
De Mar of Davis.

RULES.

Langan of Clinton,
Temple of Clarke,
Kendall of Monroe,
English of Polk,

Chassell of Plymouth,
Koontz of Johnson,
Springer of Buchanan
Mr. Speaker.

REPRESENTATIVES AND THEIR RESPECTIVE COMMITTEES.

BAILEY.

Roads and Highways—Chairman,
Ways and Means,
Private Corporations,
Labor,

Insurance,
Agriculture,
Institute for Feeble Minded,
Agricultural College.

BEALER.

Compensation of Public Officers—
Chairman,
Ways and Means,
Appropriations,
Railroads and Commerce,
Municipal Corporations,

Constitutional Amendments,
Military,
Institute for Deaf,
Judicial Districts.

BIXBY.

Appropriations,
Public Health,
State University,
Agriculture,
Enrolled Bills,

Schools and Text-Books,
Animal Industry,
Penitentiaries,
Fish and Game.

BOLAND.

Appropriations,
Woman Suffrage,
State University,
Agriculture,
Public Libraries,

Insurance,
Public Lands and Buildings,
Telegraph, Telephone and Express.

BUCKINGHAM.

Ways and Means,
Municipal Corporations,
Mines and Mining,
Pharmacy,
Agriculture,

Animal Industry,
Telegraph, Telephone and Express,
Fish and Game,

CALDERWOOD.

Labor—Chairman,
Railroads and Commerce,
Banks and Banking,
Compensation of Public Officers,
Enrolled Bills,

Public Lands and Buildings,
Horticulture,
Soldiers' and Orphans' Home.

CARDEN.

State University—Chairman,
Ways and Means,
Municipal Corporations,
Printing,

Insurance,
Enrolled Bills,
Hospital for Insane,
Judicial Districts.

CARSTENSEN.

Engrossed Bills—Chairman
Domestic Manufactures,
Roads and Highways,
Police Regulations,
College for the Blind,

Public Lands and Buildings,
Ways and Means,
Labor,
Compensation of Public Officers,
Mines and Mining.

CASSEL.

County and Township Organiza-
tion—Chairman,
Railroads and Commerce,
Constitutional Amendments,

Agriculture,
Building and Loan,
Roads and Highways,
Animal Industry,
Horticulture.

CHASSELL.

Printing—Chairman,
Judiciary,
Appropriations,
Suppression of Intemperance,

Congressional Districts,
Insurance,
Telegraph, Telephone and Express,
Rules.

CHENEY.

Woman Suffrage—Chairman,
Ways and Means,
Banks and Banking,
Labor,

Claims,
Domestic Manufactures,
Roads and Highways,
Military.

CHRISTIANSON.

Private Corporations—Chairman,
Appropriations,
Railroads,
Banks and Banking,
Elections,

State University,
Roads and Highways,
Telegraph, Telephone and Express,
Hospital for Insane.

CLARK.

Ways and Means,
Banks and Banking,
Schools and Text-Books,

Senatorial Districts,
Private Corporations,
Public Health.

CLARY.

Judiciary,
Banks and Banking,
Private Corporations,
Elections,
Public Health,

Insurance,
Telegraph, Telephone and Express,
Soldier's and Orphans' Home.

COBB.

Ways and Means,
Suppression of Intemperance,
Woman Suffrage,
Agriculture,

Roads and Highways,
Industrial Schools,
Military,
Soldiers' and Orphans' Home.

COBURN.

Railroads,
Hospital for Insane,
Printing,
Pharmacy,
Woman Suffrage,

Road and Highways,
Telegraph, Telephone and Express,
Fish and Game,

COLCLO.

Appropriations,
Municipal Corporations,
Printing
Senatorial Districts,
Fish and Game,

Constitutional Amendments,
Schools and Text-Books,
Roads and Highways.

CONN.

Railroads and Commerce,
Suppression of Intemperance,
Agriculture,
County and Township Organization,

Roads and Highways,
Normal Schools,
Public Lands and Buildings,
Horticulture.

CROSE.

Public Lands and Buildings—
Chairman,
Ways and Means,
Printing,
Banks and Banking,

Public Health,
Hospital for Insane,
Schools and Text-Books,
Federal Relations.

CUMMINGS.

Pardons—Chairman,
Ways and Means,
Judiciary,
Railroads and Commerce,
Labor,

Elections,
Soldiers' and Orphans' Home,
Fish and Game,
Judicial Districts.

DARRAH.

Ways and Means,
Appropriations,
Municipal Corporations,
Roads and Highways,

Compensation of Public Officers,
Representative Districts,
Constitutional Amendments,

DASHIELL.

Pharmacy—Chairman,
Appropriations,
Private Corporations
Congressional Districts,
Public Lands and Buildings,

Constitutional Amendments,
Public Health,
Schools and Text-Books.

DAVIE.

Labor,
Schools and Text-Books,
Claims,
Mines and Mining,
Agriculture,

County and Township Organization,
Roads and Highways,
Animal Industry,
Soldiers' and Orphans' Home.

DEMAR.

Railroads and Commerce,
Schools and Text-Books,
Suppression of Intemperance,

Compensation of Public Officers,
Penitentiaries,
Police Regulations.

DORAN.

Animal Industry—Chairman,
Railroads and Commerce,
Labor,
Senatorial Districts,

Pharmacy,
Agriculture,
Roads and Highways,
Hospital for Insane.

DOW.

Judiciary,
Municipal Corporations,
Printing,
Congressional Districts,

Pardons,
Normal Schools,
Military,
College for the Blind.

ENGLISH.

Insurance—Chairman,
Ways and Means,
Railroads,
Printing,
Elections,

Representative Districts,
Constitutional Amendments,
Engrossed Bills,
Rules.

EPPELSON.

Ways and Means,
Appropriations,
Banks and Banking,
Mines and Mining,
Municipal Corporations,

Claims,
Senatorial Districts,
State University,
Military.

FLENNIKEN.

Elections—Chairman,
Municipal Corporations,
Ways and Means,
Appropriations,
Representative Districts,
Public Health,

Pharmacy,
Insurance,
Enrolled Bills,
Constitutional Amendments.

FREEMAN.

Public Charities—Chairman,
Ways and means,
Labor,
Compensation of Public Officers,

Elections,
Banks and Banking,
Industrial Schools,
Police Regulations,
Judicial Districts.

FRUDDEN.

Appropriations,
Municipal Corporations,
Compensation of Public Officers,
Pardons,

Enrolled Bills,
Hospital for Insane,
Federal Relations,
Agricultural College.

GENEVA.

Ways and Means,
Private Corporations,
Senatorial Districts,
Insurance,

Roads and Highways,
Normal Schools,
Horticulture,
Institute for Deaf.

GREELEY.

Suppression of Intemperance, Ch'm.
Judiciary,
Railroads and Commerce,
Banks and Banking,

Elections,
Congressional Districts,
Military,
Agricultural College.

GREENE.

Congressional Districts—Chairman,
Ways and Means,
Banks and Banking,
Elections,

Woman Suffrage,
State University,
Telegraph, Telephone and Express,
Private Corporations.

GREGORY.

Appropriations,
Printing,
Public Health,
Pharmacy,

State University,
Schools and Text-Books,
Hospital for Insane,
Judicial Districts.

HAKES.

Ways and Means,
Banks and Banking,
Claims,
Suppression of Intemperance,

Senatorial Districts,
Roads and Highways,
Normal Schools,
Agricultural College.

1. 1. 1.

1. 1. 1.

1. 1. 1.

1. 1. 1.

1. 1. 1.

1. 1. 1.

1. 1. 1.

HAMBLETON.

Judiciary,	Public Charities,
Railroad and Commerce,	Constitutional Amendments,
Mines and Mining,	Normal Schools.
Schools and Text-Books,	

HANNA.

Fish and Game—Chairman,	State University,
Appropriations,	Pardons,
Banks and Banking,	Public Charities,
Compensation of Public Officers,	College for the Blind.
Congressional Districts,	

HART.

Military—Chairman,	Roads and Highways,
Judiciary,	Telegraph, Telephone and Express,
Railroads and Commerce,	Fish and Game,
Congressional Districts,	Agricultural College.

HEAD.

Banks and Banking—Chairman,	Constitutional Amendments,
Ways and Means,	Roads and Highways,
Appropriations,	Military,
Elections,	Judicial Districts.

HELES.

Public Health,	Domestic Manufactures,
Woman Suffrage,	County and Township Organization,
Agriculture,	Roads and Highways,
Insurance,	Schools and Text-Books.

HOLLEMBEEK.

Horticulture—Chairman,	Public Libraries,
Appropriations,	Insurance,
Representative Districts,	County and Township Organization,
Agriculture,	Normal Schools.

HUME.

Appropriations,	Pardons,
Compensation of Public Officers,	County and Township Organization
Congressional Districts,	Public Charities,
State University,	Hospital for Insane.

JACOBSON.

Woman Suffrage,	Roads and Highways,
Appropriations,	Normal Schools,
Suppression of Intemperance,	Penitentiaries,
Senatorial Districts,	Fish and Game.
Agriculture,	

JEPSON.

Schools and Text-Books—Chairman, Judiciary, Municipal Corporations, Banks and Banking,	Representative Districts, Public Libraries, Pardons, Enrolled Bills.
---	---

JONES.

Penitentiaries—Chairman, Railroads and Commerce, Suppression of Intemperance, Industrial Schools,	Federal Relations, Appropriations, Banks and Banking, Congressional Districts, Public Charities.
--	--

KENDALL.

Judiciary—Chairman, Mines and Mining, Insurance, Rules, Ways and Means,	Labor, Pharmacy, Telegraph, Telephone and Express.
---	--

KENNEDY.

Judicial Districts—Chairman, County and Township Organization, Penitentiaries, Fish and Game, Railroads and Commerce,	Domestic Manufactures, Schools and Text-Books, Roads and Highways, Horticulture.
---	---

KLING.

Building and Loan—Chairman, Public Health, Pardons, Printing, Constitutional Amendments,	Ways and Means, Judiciary, Municipal Corporations, Elections.
--	--

KOONTZ.

Public Libraries—Chairman, Judiciary, Municipal Corporations, Banks and Banking,	State University, Pardons, Police Regulations, Rules.
---	--

LAIRD.

Ways and Means, Compensation of Public Officers, Mines and Mining, Woman Suffrage, Agriculture,	Roads and Highways, College for Blind, Judicial Districts, Municipal Corporations.
---	---

LANGAN.

Rules—Chairman,
Judiciary,
Municipal Corporations,
Elections,

Constitutional Amendments,
Schools and Text-Books,
Industrial Schools,
Engrossed Bills.

LERCH.

Public Health—Chairman,
Suppression of Intemperance,
Elections,
Schools and Text-Books,
Appropriations,

Municipal Corporations,
Printing,
Pharmacy,
Military.

LISTER.

Railroads and Commerce,
Claims,
Agriculture,
Domestic Manufactures,

Roads and Highways,
Municipal Corporations,
Insurance,
Schools and Text-Books.

LOWREY.

Railroads and Commerce,
Constitutional Amendments,
Insurance,
Telegraph, Telephone and Ex-
press,

Banks and Banking,
Pharmacy,
Agriculture,
Building and Loan.

LUNDT.

Railroads and Commerce,
Representative Districts,
Schools and Text-Books,
Suppression of Intemperance,

Animal Industry,
Agriculture,
Roads and Highways,
Industrial Schools.

MCALLISTER.

Roads and Highways,
Private Corporations,
Suppression of Intemperance,
Agriculture,
Schools and Text-Books,

Municipal Corporations,
Military,
Institute for Deaf,
Telegraph, Telephone and Express.

MCCLURKIN.

Agricultural College—Chairman,
Ways and Means,
Municipal Corporations,
Banks and Banking,

Suppression of Intemperance,
Printing,
Congressional Districts,
Pharmacy.

MCCREARY.

Municipal Corporations,
Banks and Banking,
Labor,
Congressional Districts,

Mines and Mining,
Public Libraries,
Normal Schools,
Military.

MCCULLOCH.

Appropriations,
 Senatorial Districts,
 Public Health,
 Pardons,
 Insurance,

Police Regulations,
 Institute for Feeble-Minded,
 Railroads and Commerce,
 Agricultural College.

MCDOLE.

Railroads and Commerce,
 Municipal Corporations,
 Compensation of Public Officers,
 Congressional Districts,

Public Health,
 Pharmacy,
 Agriculture,
 Public Libraries,
 Fish and Game.

MCELRATH.

Appropriations,
 Senatorial Districts,
 Mines and Mining,
 Agriculture,

Insurance,
 Domestic Manufactures,
 Animal Industry,
 Police Regulations.

MCNIE.

Claims—Chairman,
 Railroads and Commerce,
 Banks and Banking,
 Printing,

Public Charities,
 College for Blind,
 Judicial Districts,
 County and Township Organization,

MABEN.

Representative Districts—Chairman,
 Labor,
 Claims
 Constitutional Amendments,

Pharmacy,
 Agriculture,
 Pardons,
 Telegraph, Telephone and Express.

MARTIN.

Institute for the Deaf—Chairman,
 Railroads and Commerce,
 Municipal Corporations,
 Banks and Banking,

Representative Districts,
 Telegraph, Telephone and Express,
 Agricultural College,
 Enrolled Bills.

MATTHEWS.

Appropriations—Chairman,
 Railroads and Commerce,
 Private Corporations,
 Constitutional Amendments,

Senatorial Districts,
 Normal School,
 Telegraph, Telephone and Express,
 Fish and Game.

MEREDITH.

Judiciary,
 Appropriations,
 Municipal Corporations,
 Pardons,

Hospital for Insane,
 Institute for Deaf,
 Judicial Districts.

MORRIS.

Appropriations,
Claims,
Woman Suffrage,
Pharmacy,
Agriculture,

Pardons,
Insurance,
Roads and Highways,
Telegraph, Telephone and Express.

MOTT.

Industrial Schools—Chairman,
Ways and Means,
Appropriations,
Public Health,

Printing,
Elections,
Representative Districts,
Federal Relations.

NICHOLS.

Soldiers' and Orphans' Home—
Chairman,
Railroads and Commerce,
Municipal Corporations,
Elections,

Senatorial Districts,
Pharmacy,
Woman Suffrage,
Agriculture,
Pardons.

OFFILL.

Agricultural College,
Labor,
Mines and Mining,
Agriculture,
Animal Industry,

Penitentiaries,
Military,
Soldiers' and Orphans' Home,
Judicial Districts.

OLSON.

Labor,
Claims,
Congressional Districts,
Agriculture,
County and Township Organization,

Penitentiaries,
Military,
Soldiers' and Orphans' Home,
Agricultural College.

PRET.

Municipal Corporations,
Representative Districts,
Mines and Mining,
Public Health,
Agriculture,

Animal Industry,
Penitentiaries,
Horticulture,
Roads and Highways.

POWERS.

Domestic Manufactures—Chairman,
Ways and Means,
Appropriations,
Woman Suffrage,

Building and Loan,
Schools and Text-Books,
Roads and Highways,
Institute for Deaf.

PRITCHARD.

Agriculture—Chairman,
Ways and Means,
Railroads and Commerce,
Suppression of Intemperance,

Printing,
Elections,
Telegraph, Telephone and Express.
Military.

RITTER.

Ways and Means,
Labor,
Representative Districts,
Mines and Mining,

Public Libraries,
Pardons,
Municipal Corporations.
Insurance.

ROBINSON.

Normal Schools—Chairman,
Ways and Means,
Judiciary,
Appropriations,

Banks and Banking,
Pharmacy,
Agriculture,
Engrossed Bills,
Insurance.

SANKEY.

Banks and Banking,
Public Libraries,
Domestic Manufactures,
Schools and Text-Books,
Public Lands and Buildings,

Military,
Institute for Feeble-Minded,
Federal Relations.

SAYLOR.

Banks and Banking,
Municipal Corporations,
Labor,
Railroads and Commerce,
State University,
Public Libraries,

Public Lands and Buildings,
Public Charities,
Engrossed Bills.

SHAFFER.

College for Blind—Chairman,
Ways and Means,
Suppression of Intemperance,
Agriculture,

County and Township Organization.
Roads and Highways,
Normal Schools,
Public Lands and Buildings,
Horticulture.

SKINNER.

Police Regulations—Chairman,
Railroads and Commerce,
Municipal Corporations,
Compensation of Public Officers,

Printing,
Pardons,
Insurance,
Normal Schools.

SPAULDING.

Enrolled Bills--Chairman,
Judiciary,
Labor,
Mines and Mining,

Public Health,
State University,
Agriculture,
Public Libraries.

SPRINGER.

Hospitals for Insane--Chairman,
Judiciary,
Municipal Corporations,
Printing,

Constitutional Amendments,
Pardons.
Insurance,
Fish and Game,
Rules.

STANBERRY.

Judiciary,
Appropriations,
Private Corporations,
Suppression of Intemperance,

Representative Districts,
Domestic Manufactures,
Schools and Text-Books,
Police Regulations.

STOLTENBERG.

Ways and Means,
Labor,
Agriculture,
Insurance,
Building and Loan,
Domestic Manufactures,

Telegraph, Telephone and Express,
Public Charities,
Private Corporations.

SUMMERS.

Ways and Means,
Printing,
Private Corporations,
Compensation of Public Officers,
Senatorial Districts,

Public Health,
Public Libraries,
Public Charities,
Institute for Feeble-Minded.

TEACHOUT.

Mines and Mining--Chairman,
Judiciary,
Municipal Corporations,
Banks and Banking,

Pardons,
Industrial Schools,
Police Regulations,
Printing.

TEMPLE.

Ways and Means--Chairman,
Judiciary,
Insurance,
Constitutional Amendments,

Public Libraries,
Penitentiaries,
Federal Relations,
Judicial Districts,
Rules.

TETER.

Senatorial Districts—Chairman,
Judiciary,
Claims,
Insurance,
Schools and Text-Books,

Penitentiaries,
Telegraph, Telephone and Express,
Institute for Feeble-Minded,
Building and Loan.

VAN EATON.

Ways and Means,
Representative Districts,
Schools and Text-Books,
Institution for Feeble-Minded.

Agricultural College,
Railroads and Commerce,
Military.

WASHBURN.

Institute for Feeble-Minded—Chair-
man,
Horticulture,
Labor,
Claims,

Compensation of Public Officers,
Agriculture,
Domestic Manufactures,
Railroads and Commerce.

WEEKS.

Federal Relations—Chairman,
Judiciary,
Appropriations,
Railroads and Commerce,

Woman Suffrage,
Pardons,
Roads and Highways,
Telegraph, Telephone and Express.

WELDEN.

Railroads and Commerce,
Congressional Districts,
Insurance,
Domestic Manufactures,

Telegraph, Telephone and Express,
Industrial Schools,
Military,
Agricultural College.

WHITING.

Ways and Means,
Banks and Banking,
Labor,
Insurance,
Constitutional Amendments,

Representative Districts,
State University,
Building and Loan,
Telegraph, Telephone and Express,
College for the Blind.

WHITMER.

Appropriations,
Banks and Banking,
Claims,
State University,
Roads and Highways,

Public Charities,
Institute for Deaf,
Public Lands and Buildings.

WILLSON.

Railroads and Commerce, Claims, Agriculture, Enrolled Bills,	Public Lands and Buildings, Horticulture, College for the Blind, Judicial Districts.
---	---

WISK.

Railroads and Commerce—Chair- man, Judiciary, Banks and Banking, Public Libraries,	Normal Schools, Federal Relations, Engrossed Bills, Public Lands and Buildings.
--	--

WRIGHT.

Constitutional Amendments—Chair- man, Judiciary, Appropriations, Municipal Corporations,	Suppression of Intemperance, Congressional Districts, Federal Relations, Institute for Deaf.
--	---

WYLAND.

Railroads and Commerce, Municipal Corporations, Elections, Representative Districts, Pharmacy, Woman Suffrage,	Pardons, Buildings and Loan, Institute for Feeble-Minded, Claims.
---	--

MR. SPEAKER.

Rules.

	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
Room 1—						
Ways and Means.....		2 p. m.		2 p. m.		
Judiciary.....	2 p. m.		2 p. m.		3 p. m.	
Agriculture.....		3 p. m.	4 p. m.			2 p. m.
Railroads and Commerce.....		4 p. m.		3 p. m.		4 p. m.
Printing.....						
Room 6—						
Roads and Highways.....		4 p. m.		2 p. m.		
Mines and Mining.....	2 p. m.					2 p. m.
Animal Industry.....		2 p. m.				
Judicial Districts.....	3 p. m.	2 p. m.		3 p. m.		
Hospital for Insane.....			2 p. m.		4 p. m.	
Public Charities.....			4 p. m.		2 p. m.	
Room 8—						
Elections.....				4 p. m.		2 p. m.
Schools and Text-Books.....		2 p. m.		2 p. m.		
Suppression of Intemperance.....		4 p. m.			4 p. m.	
Insurance.....	3 p. m.		3 p. m.			
Room 10—						
Congressional Districts.....		2 p. m.		2 p. m.		
Penitentiaries.....			2 p. m.			2 p. m.
Engrossed Bills.....	2 p. m.				2 p. m.	
Pardons.....		3 p. m.		3 p. m.		
State University.....	4 p. m.			4 p. m.		
Institute for Feeble-Minded.....			4 p. m.			4 p. m.
Room 11—						
Pharmacy.....		2 p. m.			4 p. m.	
Appropriations.....			2 p. m.	2 p. m.	2 p. m.	
Normal Schools.....	4 p. m.			4 p. m.		
College for the Blind.....			4 p. m.			2 p. m.
Institute for Deaf.....	2 p. m.					4 p. m.
Room 2—						
Constitutional Amendments.....		4 p. m.			4 p. m.	
Woman Suffrage.....			4 p. m.	4 p. m.		
Retrenchment and Reform.....			2 p. m.			3 p. m.
Military.....	3 p. m.			3 p. m.		
Enrolled Bills.....		3 p. m.			3 p. m.	
Room 12—						
Representative Districts.....	2 p. m.				2 p. m.	
Domestic Manufactures.....	3 p. m.				3 p. m.	
County and Twp. Organization.....		4 p. m.		4 p. m.		
Telegraph, Telephone and Ex.....			3 p. m.	3 p. m.		
Room 13—						
Industrial Schools.....		3 p. m.		3 p. m.		
Senatorial Districts.....	4 p. m.			4 p. m.		
Horticultural.....		2 p. m.			2 p. m.	
Agricultural College.....			2 p. m.			
Room 14—						
Soldiers' and Orphans' Home.....	2 p. m.			3 p. m.		
Federal Relations.....		2 p. m.			2 p. m.	
Fish and Game.....		3 p. m.			3 p. m.	
Police Regulations.....	3 p. m.			3 p. m.		
Claims.....			3 p. m.			2 p. m.
SPEAKER'S ROOM—						
Committee on Rules.....						
Room 7—						
Labor.....		4 p. m.			4 p. m.	
Public Lands and Buildings.....	2 p. m.			2 p. m.		
Public Libraries.....			2 p. m.			
Building and Loan.....			4 p. m.		2 p. m.	
Room 15—						
Public Health.....			2 p. m.			3 p. m.
Banks and Banking.....		2 p. m.		2 p. m.		
Municipal Corporations.....		4 p. m.		4 p. m.		
Compensation of Pub. Officers.....	4 p. m.				4 p. m.	
Private Corporations.....			4 p. m.			4 p. m.

Room 5—Chief Clerk. Room 4—Journal Clerk. Room 3—File Clerk.
Room 2—Enrolling Clerk. Room 27—Newspaper Reporters.

BIENNIAL REPORT

OF

Inspectors of Oils

1903 - 1905

COMPILED BY

W. B. MARTIN, Secretary of State.

PRINTED BY ORDER OF THE GENERAL ASSEMBLY.

DES MOINES
BERNARD MURPHY STATE PRINTER
1905

LETTER OF TRANSMITTAL.

To His Excellency, the Honorable Albert B. Cummins, Governor of Iowa.

DEAR SIR—In accordance with the provisions of Chapter 87, Acts of the Thirtieth General Assembly, I have the honor to transmit herewith a report of the inspections, receipts and expenditures made by the oil inspectors during the biennial period ending June 30, 1905.

The laws relating to the inspection of oils was thoroughly revised by the Thirtieth General Assembly by the enactment of a substitute for Chapter 2, Title XII, in substantially the form and in accordance with the recommendations made in my last biennial report, and the wisdom of this course has been demonstrated by the increased efficiency of the service, and a very material reduction in the cost of the service and a substantial increase in profit to the State.

The number of barrels of oil rejected was 897, as compared with 1,695 barrels for the former period.

The amount of increase in inspection was 14,551 barrels of oil and 26,936 barrels of gasoline, with an increase of fees in the sum of \$4,174.54 over that of the former period, and a decrease of \$1,046.02 in expenses. In other words, it has cost the State \$1,046.02 less to do \$4,174.54 worth more business during the period covered by this report than for the preceding period. This report will also show a net gain to the State of \$5,254.84.

For the biennial period ending June 30, 1903, the cost of the service was 61 47-100 per cent of the total amount of the fees received, and for the period ending June 30, 1905, it was 57 49-100 per cent, while the per cent of profit to the State was 35 73-100 per cent for the former and 39 32-100 per cent for the latter.

The present law went into effect on July 4, 1904, hence the last one-half only of this biennial period is under its operation.

One of the distinctive features of the new law was the pro-

visions made for the appointment of an inspector in chief, clothed with supervisory powers in the matter of inspections and authority to determine all questions in dispute, which has unquestionably resulted in increased efficiency in that branch of the service.

Additional authority was also conferred upon the secretary of state, thus enabling this department to secure additional and better reports, permitting of the inauguration of a system of checking not possible under the old law.

A wise provision and one that can not be too highly commended is the requirement that all fees collected shall be paid to the state, and, that all claims against the state for services rendered and for expenses incurred shall be audited by the Executive Council in the same manner as other claims against the state.

The requirements of the statutes relative to reports from oil companies, though attended with some confusion in the early stages of its operation, has been freely complied with as soon as thoroughly understood, and but little cause for complaint on this score now remains.

In the matter of accidents from the use of illuminating oils or the improper handling of gasoline, I have but little to report.

No written report has been made to this department of any serious accident to life or property from these causes, and but one case of loss of life has come to my notice, and that through the public press and by oral statements, and it appears the evidence in the case is so conflicting that only a court of competent jurisdiction can fix the responsibility, but from the best obtainable information it is clear that no blame can attach to the inspection service or anyone connected therewith.

All inspectors are now using regular mileage, interchangeable mileage, or credentials, which is charged to the state in their reports at two cents per mile, or, the rebate coupons turned over to the state for collection, so that with a very few exceptions, the fare is on a two-cent basis, but as I have no data at hand I am unable to report the amount of saving from this source.

Respectfully,

W. B. MARTIN,

Secretary of State.

CHAPTER 87.

INSPECTION OF PETROLEUM PRODUCTS.

S. F. 76.

AN ACT to repeal the law as it appears in chapter eleven (11), title twelve (12), of the code and the law as it appears in sections two thousand five hundred and three (2503), two thousand five hundred and eight (2508) and two thousand five hundred and eight-a (2508-a), of the supplement to the code, relating to the inspection of petroleum products and enacting a substitute therefor.

Be it Enacted by the General Assembly of the State of Iowa:

Section 1—Inspectors—Chief Inspector. The Governor shall appoint inspectors of products of petroleum, not exceeding fourteen in number, one of whom shall be designated as chief inspector, who shall have general supervision of the inspection service of the State, except in the matter of making reports and the payment and receipt of fees. All differences arising in the inspection of oils shall be referred to the chief inspector and his decision of the question shall be final. The chief inspector shall make such recommendations to the State Board of Health as may be deemed necessary to improve the inspection service. He shall devote his time and service wholly to the inspection of oil and the duties of his office. Inspectors may appoint such deputies, helpers and branders as may be necessary in the proper discharge of their official duties, but such appointments before becoming effective must be submitted to, approved and confirmed, and their compensation fixed by the Executive Council as in their judgment may be necessary, equitable and just. Each inspector shall be a resident of the State, and not interested directly or indirectly in the manufacture or sale of products of petroleum. His term of office shall begin on the first day of July in each even numbered year. He shall give bond to the State in the penal sum of five thousand dollars, conditioned upon the faithful performance of his duties, with sureties who shall, in addition to the usual justification, make oath, entered on the bond, that they are not directly or indirectly interested in the manufacture or sale of products of petroleum for illuminating purposes, which bond shall be for the benefit of all persons injured through the failure of the inspector to perform his duties, and shall be filed with, and the sureties thereon approved by, the Secretary of State.

Sec. 2—Regulations. The State Board of Health shall make rules and regulations for the inspection of petroleum products, for the government of inspectors, and prescribe the instruments and apparatus to be used. Such rules and regulations shall be approved by the Governor, and, when so approved, shall be binding upon all inspectors.

Sec. 3. Inspection—branding—fees—supplies. Each inspector shall be furnished, at reasonable expense to the State, with the necessary supplies,

instruments and apparatus for testing, and shall promptly make inspection, and test and brand all illuminating oils kept for sale, and for such purpose may enter upon the premises of any person. He shall reject all oils for illuminating purposes which will omit a combustible vapor at a temperature of 105 degrees, standard Fahrenheit thermometer, closed test, not less than one-half pint of oil to be used in the flash test. If upon test and examination the oil shall meet the requirements, he shall brand over his official signature and date the barrel or package holding the same, "Approved, Flash TestDegrees," inserting in the blank the number. Should it fail to meet the requirements, it shall be branded under his official signature and date, "Rejected for Illuminating Purposes." All inspections shall be made within the State, and paid for by the person for whom the inspection is made, at the rate of ten cents per barrel, fifty-five gallons for this purpose constituting a barrel, which charge shall be a lien upon the oil inspected, and be collected by the inspector, reported and paid to the Secretary of State, on or before the fifteenth day of each month. For the purposes of this act, gasoline, benzine and naphtha shall be deemed illuminating oil. No gasoline shall be sold, given away or delivered to any person in this State until the package, cask, barrel or vessel containing the same has been plainly marked "gasoline" in such manner as the Executive Council may prescribe. There shall be no refund nor rebate of charges made or paid for inspection except upon a duly verified certificate of the owner that the goods, for which such rebate is asked, have been disposed of outside of the State. Said certificate to be in such form as shall be prescribed by the Secretary of State and shall be delivered to the inspector and attached to his monthly report. The expense of inspection shall be deducted from any rebate or refund so granted. Any person, firm, corporation or agent violating any of the provisions of this act shall be deemed guilty of a misdemeanor and punished accordingly. All necessary supplies, labels, instruments and apparatus as contemplated in this chapter, shall be purchased by the Executive Council, and shall be furnished to inspectors as needed by them, upon requisition therefor, made to the chief inspector, approved by him and forwarded to the Executive Council. Every person who receives products of petroleum for sale which have not been inspected as provided in this chapter, shall, within five days after the receipt thereof, notify the inspector of that inspection district that the same is in his possession; and to neglect so to do shall be deemed a misdemeanor.

Sec. 4. Record and report—reports from companies, agents, etc. Each inspector shall keep an accurate record of all oils inspected and branded, the number of gallons, the number and kind of barrels or packages, the date and number of gallons approved, the number rejected, the name of the person for whom inspection was made, and the amount of money received therefor, the necessary traveling expenses incurred, and the expenses incurred in prosecution, which record at all reasonable times shall be open to public inspection. A copy of this record duly verified under oath for the preceding month shall be filed with the Secretary of State on or before the fifteenth day of each month, who shall examine said report and if found correct endorse his approval thereon, and certify the same to the Executive Council, and when approved by said council, the Auditor of State shall issue his warrant upon the Treasurer of State for the amount so approved and

due the several inspectors, and no item of expense shall be allowed and paid not shown in such reports. It shall be the duty of all persons, firms or corporations, officers or agents thereof within the State, receiving any of the products of petroleum subject to inspection, to file with the Secretary of State on or before the tenth day of each month, a certificate duly verified, in such form as shall be approved by the Secretary of State, to cover the month preceding the one in which said report is made. Such reports shall show the number of tanks or barrels, and if in tanks the tank number, of each product inspected for such person, firm, corporation, officer or agent, the amount of fees paid for such inspection, to whom paid, and, that the amounts so stated are all the products received by him or them which are subject to inspection during such period. For any failure to make the reports contemplated in this section the person, firm, corporation, officer, agent or employee shall be liable to a fine of not less than ten dollars nor more than one hundred dollars.

Sec. 5. Compensation of Inspectors—Expenses. Each inspector shall be allowed as full compensation for his services all fees and commissions earned and collected by him up to fifty dollars per month, and twenty-five per cent of any sum collected in any one month in excess of fifty dollars, but in no case shall his compensation exceed one hundred dollars per month, except that the chief inspector shall be allowed twenty-five per cent of any sum collected by him in any one month in excess of fifty dollars, up to and not exceeding one hundred and fifty dollars. Inspectors shall also be allowed such other sums necessarily and actually expended in the discharge of their official duties; and for necessary expenses incurred for prosecution of violation of the provisions of this chapter, and for necessary help in branding barrels. All money collected each month by inspectors, shall, on or before the fifteenth day of the following month, be paid to the Secretary of State, and by him accounted for as other fees of his office.

Sec. 6. Penalties—damages. If any person, company or corporation, or agent thereof, shall sell, or attempt to sell, any product of petroleum for illuminating purposes which has not been inspected and branded as in this chapter provided, or shall falsely brand any barrel or package containing such petroleum product, or shall refill with products of petroleum barrels or packages having the inspector's brand thereon, without erasing such brand and having the contents thereof inspected, and the barrel or package re-branded, or shall purchase, sell or dispose of any empty barrel or package without thoroughly removing the inspection brand, or shall knowingly or negligently sell, or cause to be sold, or shall use or cause to be used, any product of petroleum mentioned in this chapter not inspected and tested, except as otherwise authorized herein; or if any person shall adulterate with any substance for the purpose of sale or use any product of petroleum to be used for illuminating purposes in such a manner as to render it dangerous, or shall sell or offer for sale, or use any product of petroleum for illuminating purposes which will emit a combustible vapor at a temperature of less than 105 degrees, standard Fahrenheit-thermometer, closed test, except as otherwise provided in this section for illuminating railway cars, boats and public conveyances, and except when the oils from which said gas or vapor is generated in closed reservoirs outside the building to be lighted thereby, and except the lighter products of petroleum when used in such lamps or appa-

ratus which, having been submitted to the State Board of Health and having been examined and tested by said board shall be found to be safe for the use of the public and for street light by street lamps, shall be fined not less than ten dollars nor more than fifty dollars, or if any common carrier shall carry in any railway passenger, baggage, mail, or express car, street railway car, boat, stage coach, omnibus, or other means of public conveyance, or use or burn therein any oil or fluid, whether composed wholly or in part of petroleum or its products, which will ignite and burn at a temperature of 300 degrees Fahrenheit thermometer, open test, for lighting any lamp, vessel, or fixture of any kind, or boat or street railway car, stage coach or other means of public conveyance; or if any inspector shall falsely brand any package or barrel, or shall practice any fraud or deceit in office, or be guilty of any official misconduct or culpable negligence to the injury of another, or shall deal or have any pecuniary interest, directly or indirectly in any oils or fluids sold for illuminating purposes while holding such office, he or such person, company, corporation or agent shall be fined not less than fifty dollars and shall be liable in a civil action for all damages which may be sustained on account thereof, and each such inspector shall be fined in a sum not less than ten dollars nor more than one thousand dollars, or imprisoned in the county jail not exceeding six months, or be punished by both fine and imprisonment.

Sec. 7. **Examination of lamps and apparatus.** The State Board of Health shall examine the particular design, mechanism, and workmanship of such lamps or apparatus as shall be presented to such board, and test said lamps or apparatus, and, if it shall find any lamp or apparatus to be safe, said board shall enter the findings of the board upon the records of the proceedings of said board. The board shall have power, in case it comes to the notice of the board that any lamp or apparatus which it has heretofore approved as safe, because either of change of design, the use of unsuitable material, or poor workmanship in the construction of such lamps or apparatus, or for any other cause, is unsafe as then manufactured, and dangerous to public safety to cancel its approval of such lamp or apparatus, and after such cancellation of the approval of said lamp or apparatus, it shall be unlawful to sell or use the same, and no lamps or apparatus manufactured or sold after such disapproval shall be used in burning the lighter products of petroleum for illuminating purposes. The State Board of Health shall notify by registered letter the several inspectors of any approval or disapproval by them of any lamp or apparatus submitted to them for examination.

Sec. 8. **Removal of inspectors.** It shall be the duty of the Governor to remove from office any inspector who is incompetent or unfaithful in the discharge of his official duty, or, having knowledge of the violation of any of the provisions of this chapter, shall neglect or refuse to prosecute the offender. In July of each year each inspector shall file with the secretary of the Executive Council an inventory of all instruments and apparatus belonging to the State, in his possession, or that of his deputy or helper, which shall be fully accounted for in such manner as may be prescribed by the Executive Council.

Sec. 9. **Biennial report.** The Secretary of State shall make and deliver to the Governor a report, for the fiscal year ending on the thirtieth day

of June in each odd numbered year, of all inspections made, the receipts and expenditures therefor, and such other items as are by this chapter required to be made of record.

Sec. 10. **Repealed.** The law as it appears in chapter eleven (11), title twelve (12), of the code and the law as it appears in sections two thousand five hundred and three (2503), two thousand five hundred and eight (2508) and two thousand five hundred and eight-a (2508-a), of the supplement to the code, relating to the inspection of petroleum products, are hereby repealed and the foregoing enacted in lieu thereof.

Approved April 6, A. D. 1904.

REVISED CIRCULAR No. 6, STATE BOARD OF HEALTH.
INSPECTION OF ILLUMINATING OILS AND LINSEED
OIL.

RULES AND REGULATIONS.

KEROSENE OIL.

RULE 1. *The instruments.*—The instrument to be used in testing oil under the provisions of Chapter 87, Section 2, Laws Thirtieth General Assembly, shall be that made by Eimer & Amend, New York, and shall have inscribed thereon the words: "Oil Tester, Iowa State Board of Health," and shall be constructed as follows:

It consists of a sheet copper stand, $8\frac{1}{2}$ inches high exclusive of the base, and $4\frac{1}{2}$ inches in diameter. On one side is an aperture $3\frac{1}{2}$ inches high for introducing a small spirit lamp, or better, a small gas burner, instead of a lamp, when gas is available.

The water bath is also of copper, $4\frac{1}{2}$ inches in height and 4 inches in diameter inside, provided with a flanged cover; the opening in the cover $2\frac{1}{2}$ inches in diameter. The flange which supports the bath in the cylindrical stand, is one-fourth inch projection. The capacity of the bath is about 20 fluid ounces, which is indicated by a mark on the inside.

The oil cup is also of copper. The section below the flange is $3\frac{1}{2}$ inches high and $2\frac{1}{2}$ inches in diameter. The section above the flange is 1 inch high and $3\frac{1}{2}$ inches in diameter, and serves as the vapor chamber. A small flange at the upper rim serves to hold the cover, which is of glass, in place.

To prevent reflection from the otherwise bright surface of the metal, the inside is blackened by forming a sulphide of ammonia. The capacity of the oil cup is about ten fluid ounces, when filled to within one-eighth of an inch of the flange which joins the oil-cup and the vapor chamber.

The cover of the oil cup is of glass, three and five-eighths inches in diameter; is perforated on one side with a circular opening, which is filled

with a cork, through which passes the thermometer. On the rim is another oval opening three-fourths of an inch deep, and the same in width, through which is to be passed the flashing jet in testing. The glass cover is used instead of metal that the operator may more readily note the exact point at which the flash occurs. A small gas jet one-fourth of an inch in length is best for igniting the vapor. Where gas can not be had, and to prevent the frequent discrepancy in tests made by different inspectors of the same oil at different places, owing largely, if not entirely, to the difference in their torches, and to obviate the frequent annoyance from that fact, and from smoke from waxed threads filling the vapor chamber of the cup, thereby preventing an accurate and reliable test, a portable gas torch has been devised, which inspectors in this state are required to procure and use for testing products of petroleum.

THE FLASH TEST.

RULE 2. The test shall be made as follows :

Remove the oil-cup and fill the water-bath with cold water to the mark on the inside. Place the oil-cup in the water-bath, and fill it with oil to within one-eighth of an inch of the flange. Care must be taken that oil does not flow over the flange. Remove all air bubbles with a piece of blotting paper. Place the glass cover on the oil-cup and adjust the thermometer so that its bulb shall be entirely covered by the oil.

Apply the apparatus for heating the water-bath, and so adjust the flame that the degree of heating will *not exceed* two degrees per minute.

When the temperature of the oil has reached ninety degrees Fahrenheit, the test should commence by inserting the torch, which should have a very small flame, into the oval opening in the glass cover, passing it in at such an angle as to have the flame about three-eighths of an inch above the oil, and reaching near the center of the vapor chamber.

The motion must be steady and uniform, rapid, and without any pause. This must be repeated at every two degrees' rise in the thermometer until one hundred degrees is reached, when the torch must be applied at each degree of temperature until one hundred and five degrees is reached. Great care must be exercised to secure accuracy at this point, and to this end the torch must be applied just before the temperature reaches the one hundred and five degree point. If no flash is shown at this point continue the test at each two degrees' rise until the flashing point is reached, which is indicated by the appearance of a slight bluish flame **ON THE SURFACE OF THE OIL.** The *lowest point at which this vapor flame appears on the surface of the oil*, and a perceptible flash is produced, is to be designated as the flashing point. The temperature of the oil must be noted before the torch is applied. The flame of the torch must not touch the oil or come within three-eighths of an inch of its surface. Oil that flashes at one hundred and five degrees, or below that, must be rejected. (Section 3-Chapter 87-30th G. A.)

As cold oil will expand by heating, care must be taken that it does not rise so as to flow over or on the flange or shoulder of the oil cup. That part of the oil cup comprising the vapor chamber and the flange must be dry and entirely free from oil. All air bubbles must be removed from the surface of the oil; this can be done with ordinary blotting paper. The water-bath cup must be filled with cold water for each separate test, and the oil in the

cup brought to a temperature of sixty to sixty-five degrees before the lamp is placed under the water-bath. The oil cup must be carefully and thoroughly wiped dry of oil from the previous test. The flame of the torch must not exceed one-eighth of an inch in length or size.

FOR TESTING THREE HUNDRED DEGREES.

RULE 3. The instrument to be used for testing oils which come under the provisions of section 6, Chapter 87, Laws 30th General Assembly shall consist of the cylinder, the copper oil cup, the copper collar, for suspending the oil cup in the cylinder, and an adjustable wire support for suspending the thermometer in the oil.

RULE 4. To ascertain the igniting and burning point the test should be made as follows:

Fill the cup with the oil to be tested to within three-eighths of an inch of the flange joining the cup and the vapor chamber above. Care must be taken that oil does not flow over the flange, by expansion from heating. Place the cup in the cylinder, covered with the collar. Adjust the wire support so that the thermometer bulb, when supported thereon, will be just covered by the oil, the bulb also being near the center of the cup. Place the lamp or gas jet under the cup. Adjust the flame so that the degree of heating will not exceed ten degrees each minute until two hundred and fifty degrees Fahrenheit is reached, when the rate must not exceed five degrees a minute above that point. The torch to be used must be the same as described in rule one, for obtaining the flash-point. Apply the torch lightly across and not less than three-eighths of an inch above the surface of the oil at each five degrees rise in the temperature, until the oil ignites and burns. The lowest point at which the oil will ignite and burn is to be taken as the burning point, and no oil which burns at a temperature below three hundred and one degrees Fahrenheit must be approved for the purposes set forth in section 6, chapter 87, Laws Thirtieth General Assembly. When approved, the package, cask, barrel, or vessel, containing the oil from which the oil tested was taken, must be branded with stencil number three, as provided in said section and rule eight. The actual point at which the oil burns must be branded on the barrel. If it burns at three hundred and one degrees, or below that, it must be rejected. In this test the water-bath cup and the glass cover are not used, the flame of the lamp being applied directly to the bottom of the oil cup.

GENERAL RULES

RULE 5. All instruments, testers, and thermometers to be used by inspectors must be approved by, and registered in, the office of the State Board of Health.

RULE 6. Inspectors must have all previous brands of tests removed from packages, casks, or barrels before affixing their brand thereon.

RULE 7. Brand number one must be circular in form, not less than eight inches in diameter, outside measurement, with ample margin to protect the vessel or barrel from the stencil brush, and must contain the following words: "Approved, flash test degrees, Iowa." And also the name of the inspector, date of inspection, and degree of test. It must also be arranged for adjustable dates, and the degrees of test.

RULE 8. Brand number two shall be square in form, not less than seven inches outside measurement, without date, and must contain the following words: "Rejected for illuminating purposes....., inspector, Iowa." It must contain the name of the inspector; it must be affixed to all packages, casks, cans, barrels, or vessels containing kerosene which does not flash at a point above 105 degrees Fahrenheit. It must also be affixed to all packages, casks, barrels, or vessels containing gasoline, naptha, or benzine.

Brand number three shall be of like form and dimensions as brand number one, and shall contain the words: "For illuminating cars, approved (or rejected as the case may be).....degrees, Iowa,..... 190..... ...Inspector." It shall have adjustable spaces for dates, degrees, and the words "approved" and "rejected." It must also contain the name of the inspector. No oil must be approved for illuminating cars that burns at a temperature below 301 degrees Fahrenheit.

Stencil brands must conform to patterns, on file in the office of the Secretary of the State Board of Health.

RULE 9. The inspector's brand must be placed on the package, cask, or barrel, in clear, distinct letters, and must be affixed by the inspector in person, or by some person under his personal supervision and control, who is not directly, nor indirectly, interested in the manufacture nor sale of any product of petroleum. The brand of an inspector is deemed to be his official signature, and must not be permitted to pass out of his custody or control.

RULE 10. Upon the inspection of oil by an inspector, the inspector shall deliver to the owner of the oil, or the person for whom the inspection was made, a certificate of inspection, which shall be in the following form:

APPROVED TEST			
Tank No.	Brand of Oil	Record No. of Packages	Degrees

REJECTED TEST			

Total Fees, - - \$.....
No. Barrels Approved,
No. Barrels Rejected,
For Whom Inspected
.....
Date of Inspection .....190.....
No. of Certificate.....
.....
Inspector.

APPROVED TEST			
Tank No.	Brand of Oil	Record No. of Packages	Degrees

REJECTED TEST			

OIL INSPECTOR'S CERTIFICATE	
PRESERVE THIS CERTIFICATE	
\$.....190.....	
RECEIVED OF.....	
..... DOLLARS,	
as fees for the inspection of..... Barrels	
.....ILLUMINATING OIL, and Rejection of	
87, acts Thirtieth General Assembly, State of Iowa.	Barrels of GASOLINE, under Chapter
No.....	Inspector.

RULE 11. Where oil of different grades, or standards, is placed in receiving or storage tanks, an inspection must be made, and the actual standard of oil from such tanks obtained at all times before it is put into barrels for sale and use. There must be no average test, by taking an average of the different qualities or standards of oil before it is placed in such tanks. The inspector must know the quality and standard of the oil before he affixes his brand thereon. Where a number of barrels are filled consecutively from a tank, previously inspected, an inspection of one barrel would suffice for that particular lot of barrels, *provided*, no oil has been added to the tank during the process of filling the barrels. The barreling, testing and branding must constitute one transaction. There must be no lapse of time therein. The statute requires all products of petroleum, kerosene as well as gasoline, to be inspected and branded. The branding is notice to the public of the inspection. The statute makes no distinction in the form or size of the vessel in which such product is placed. It is no less imperative that when fifty gallons of kerosene are drawn from a tank into five ten-gallon cans that the cans should be branded than that fifty gallons of kerosene taken from the same tank and put into a barrel be branded. When a product of petroleum to be used for illuminating purposes has been inspected, the fact of such inspection must be shown upon the vessel from which it is to be sold again or used. When inspected in a storage tank or tank-car, it need not be re-inspected when barreled or canned, but the barrel, can or package must be branded according to the actual standard of the article contained therein. The barrel or vessel must not be branded before filling.

Empty barrels to be subsequently filled with gasoline may be branded with stencil number three as "rejected for illuminating purposes."

RULE 12. Oil received from jobbers in barrels is frequently of various standards, and the actual standard can not be ascertained except by a separate test of each barrel. There must be no average or cumulative tests. For instance, a sample of oil taken from five barrels of 102 degree oil and five barrels of 108 degree oil would give a mixture that would, when tested, cause the whole ten barrels to be rejected, whereas five barrels, separately tested, would have to be approved. Averages are not permissible in the inspection service. Every barrel must be tested.

RULE 13. Where oil is shipped into this State in barrels, or from one point in this State to another point in this State, that has not been lawfully inspected within this State, each and every barrel must be inspected and the oil therein tested. The testing of one barrel will not authorize an inspector to brand the entire number as of the standard of the barrel tested.

The practice of jobbers in delivering oil to retail dealers without inspection is a direct violation of law. The delivery constitutes *prima facie* evidence of sale. A retail dealer receiving a lot of uninspected oil can not justify himself for selling such oil on the ground that the jobber is responsible to the State for the violation of law. He must immediately notify the inspector that the oil is in his possession. Inspectors must exercise diligence to arraign offenders and stop the practice. They must, with strict impartiality, insist upon obedience to law in their respective districts.

RULE 14. Oil in transit must not be inspected outside of the district to which it is sent.

RULE 15. In case of a lamp explosion the inspector in whose district the

accident occurred shall immediately investigate all the facts in connection therewith and report the same to the State Board of Health.

RULE 16. Inspectors must regard their duties as inspectors paramount to all other duties, and upon notification must perform them without delay.

RULE 17. No thermometer shall be used by inspectors for testing oil unless the same has been calibrated and tested for errors at the observatory at Yale college, and a certificate secured showing the result of the calibration. A copy of all such certificates shall be sent to the secretary of the State Board of Health, and recorded in his office.

MINERS' OIL

The Code has the following relative to the sale, use, and inspection of miners' oil:

"SECTION 2493. Purity of Oil.—Only pure animal or vegetable oil, paraffine, or electric lights shall be used for illuminating purposes in any mine in this State, and for the purpose of determining the purity of oils the State Board of Health shall fix a standard of purity and establish regulations for testing said oil, and said standard and regulations, when so determined, shall be recognized by all the courts of the State."

"SEC. 2494. Penalty.—Any person, firm or corporation, either by themselves, agents or employes, selling or offering to sell for illuminating purposes in any mine in this State any adulterated or impure oil, or oil not recognized by the State Board of Health as suitable for illuminating purposes as contemplated in this chapter, shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be fined not less than twenty-five dollars nor more than one hundred dollars for each offense; and any mine owner or operator or employe of such owner or operator who shall knowingly use, or any mine operator who shall knowingly permit to be used for illuminating purposes in any mine in this State any impure or adulterated oil, or any oil that has not been inspected and improved by an inspector, or any oil the use of which is forbidden in this chapter, shall upon conviction thereof, be fined not less than five dollars nor more than twenty-five dollars."

"SEC. 2. That section twenty-four hundred and ninety-five (2495) be stricken out and the following substituted therefor: 'It shall be the duty of an inspector of petroleum products to inspect and test all oil offered for sale, sold, or used for illuminating purposes in coal mines in this State, and for such purpose he may enter upon the premises of any person. If upon test and examination the oil shall meet the requirements made and provided by the State Board of Health, he shall brand, over his own official signature and date, the barrel or vessel holding the same with the words "approved for illuminating coal mines." Should it fail to meet such requirements, he shall brand it over his own official signature and date, "rejected for illuminating coal mines." All inspection shall be made within this State, and paid for by the person for whom the inspection is made at the rate of ten cents per barrel or vessel, which charge shall be a lien on the oil inspected, and be collected by the inspector. Each inspector shall be governed in all things respecting his record, compensation, expenses, and returns to the Secretary of State as provided in sections four and five of chapter 87, laws Thirtieth General Assembly. It shall be the duty of the inspector whenever

¹Parts in parentheses as amended by the Twenty-seventh General Assembly, chapter 60.

he has good reason to believe that oil is being sold or used in violation of the provisions of this chapter to make complaint to the county attorney of the county in which the offense was committed, who shall forthwith commence proceedings against the offender in any court of competent jurisdiction. All reasonable expenses for analyzing suspected oil shall be paid by the owner of the oil whenever it is found that he is selling or offering to sell impure oil in violation of the provisions of this chapter. Such expenses may be recovered in a civil action, and in criminal proceedings such expenses shall be taxed as part of the cost."

INSPECTION OF MINERS' OIL.

In pursuance with the provisions of section 2495-a-Code Supplement, the State Board of Health adopted the following rules:

RULE 1. The specific gravity of oil used for illuminating purposes in coal mines must not exceed twenty-two degrees, Tagliabue hydrometer, at sixty degrees temperature, Fahrenheit.

RULE 2. All oil must be tested in a glass footed cylinder, one and one-half inches in diameter and eight inches deep. ■

RULE 3. Fill the hydrometer jar to within three-fourths inch of the top, introduce the hydrometer, cool or heat as the case may be to sixty degrees, Fahrenheit. Allow the hydrometer to come to rest, read from below, and the last line which appears under the surface of the oil should be regarded as the true reading, care being taken that the hydrometer does not touch the sides of the jar when reading.

RULE 4. Fill a round, clear glass bottle two-thirds full with the oil and shake well; the bead should not show fluorescence similar to that of petroleum products.

RULE 5. Fill an ordinary miner's lamp with the oil, light and note character and quantity of smoke.

RULE 6. All material used for illuminating purposes in coal mines shall be free from smoke, bad odor, and by-products of resin, known as mystic oil.

RULE 7. Paraffine wax should not contain more than three per cent of oil, and the maximum melting point shall be one hundred and ten degrees Fahrenheit. To test the melting point of paraffine wax, place a chip of it on hot water, then allow the water to cool slowly, and note the temperature of the water when the wax globule loses its transparency.

RULE 8. In all cases of doubt, or question as to inspection, or as to the purity of the oil or paraffine to be used in mines, a sample of the same shall be furnished the State Board of Health for chemical analysis.

All oils, therefore, sold by dealers, or their agents, or furnished by mine owners, or operators; or used by miners in any of the coal mines of Iowa, for illuminating purposes, shall, previous to such use, have been duly inspected and branded by some district oil inspector, legally qualified by the State.

LINSEED OIL.

Chapter 52, laws of the Twenty-seventh General Assembly, relating to the sale of linseed (or flaxseed) oil, imposes new duties upon the State Board of Health and upon the oil inspectors of the state. Sections 4 and 5 relating to the "duties and powers of inspectors and board of health" and "the cost of analysis," are as follows:

SEC. 4. **Duties and powers of Inspectors and board of health.** It shall be the duty of the inspectors of petroleum products, under such rules and regulations as the STATE BOARD OF HEALTH may prescribe, to enforce the provisions of this act. The violation of any of the provisions of this act relating to the manufacture and adulteration of linseed or flaxseed oil is hereby declared to be a public nuisance, and any court of competent jurisdiction is authorized, upon application of the board of health or its agents, to enjoin such violation, in the same manner as injunctions are usually granted under the rules and practice of such court. The board, its inspectors, assistants, experts and chemists, and others appointed by it, shall have access, ingress, and egress to and from all places of business and buildings where linseed or flaxseed oil is kept for sale, stored or manufactured. They shall also have the power and authority to open any tank, barrel, can, or other vessel containing such oil, and may inspect the contents thereof, and take samples therefrom for analysis. All clerks, bookkeepers, express agents, railroad agents, or officials, employes of common carriers, or other persons, shall render them all the assistance in their power, when so requested, in tracing, finding, or inspecting such oil.

SEC. 5. **Cost of analysis.** It shall be the duty of the court in every action brought under this act to tax as costs in the cause, the actual and necessary expense of analyzing the linseed or flaxseed oil which shall be in controversy in such proceeding; provided, that the amount so taxed shall not exceed the sum of twenty-five (25) dollars. It shall be the duty of the county attorney, upon the application of the State Board of Health, to attend to the prosecution in the name of the State, of any suit brought for violation of any of the provisions of this act within his county.

Approved June 27, 1905.

ALBERT B. CUMMINS, *Governor.*

H. MATTHEY, *President,*
J. F. KENNEDY, *Secretary,*
State Board of Health.

NAME AND POST OFFICE ADDRESS OF INSPECTORS.

District.	Inspector.	Address.
1	H. M. Pickell, Inspector in Chief.....	Des Moines.
2	Chas. S Rogers	Mt. Pleasant.
3	Edwin I. Cameron.....	Davenport.
4	LeRoy Burch.....	Cedar Rapids.
5	A. E. Whitney	Fayette.
6	R. A. Santee.....	Cedar Falls.
7	S. W. Morgan.....	Marshalltown.
8	F. B. Rogers.	Britt.
9	Thomas Chantland.	Badger.
10	W. J. Scott.....	Ida Grove.
11	W. A. Welch.....	Sioux City.
12	{ Ed C. Brown, term expired December 31, 1904....	} Council Bluffs.
	{ L. B. Cousins, from January 1, 1905.....	
13	John B. Currie.	Creston.
14	H Shivvers	Knoxville.

**REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF
JULY, 1908.**

Inspector.	Address.	No. bbls. oil rejected.	No. bbls. oil approved.	No. bbls. gaso- line rejected for illumina- ting purposes.	Amount of fees received.	Amount of fees retained.	Expense.	Amount paid to treasurer of state.	Amount paid deputy and helper, brand- ing barrels.
Pickell, H. M. . .	Des Moines	...	1,180	1,918	\$ 809.80	\$ 100.00	\$ 88.05	\$ 125.88	\$ 75.00
Rogers, C. B. . .	Mt Pleasant	8	835	1,033	245.90	99.23	103.02	44.65	70.00
Cameron, E. I. . .	Davenport.	...	1,518	2,024	351.20	100.00	94.45	159.75	65.00
Burch, LeRoy . .	Cedar R. . .	...	974	1,717	269.10	100.00	89.71	79.39	75.00
Whitney, A. E. . .	Fayette . .	...	1,308	684	188.70	84.67	104.03	.....	75.00
Santee, R. A. . .	Cedar Falls	...	465	1,925	246.00	99.00	38.08	111.92	25.00
Morgan, S. W. . .	Marshall's	...	1,544	1,275	281.90	100.00	24.78	157.17	10.00
Rogers, F. B. . .	Britt . . . .	...	1,083	1,831	286.40	96.60	43.74	96.06	10.00
Chantland, Thos.	Badger . . .	...	665	1,161	181.60	82.90	41.83	57.38	18.00
*Scott, W. J. . .	Ida Grove .	...	497	608	110.60	65.12	58.79	.....	80.00
Welch, W. A. . .	Sioux City.	...	936	1,928	288.10	100.00	78.56	114.54	47.25
Brown, Ed. O. . .	Council B. .	...	686	1,855	196.40	87.10	30.04	81.26	15.00
Currie, J. B. . .	Oreston . .	...	814	899	171.50	80.82	25.19	65.79	10.00
Shivvers, H. . . .	Knoxville .	...	1,140	1,688	277.80	100.00	116.24	61.56	67.50
Total . . . . .	.....	8	15,448	20,159	\$8,360.70	\$1,394.94	\$ 913.85	\$1,155.32	\$ 612.75

* Fees and expenses of W. J. Scott \$3.41 in excess of amount of fees received.

**REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF
AUGUST, 1908.**

Inspector.	Address.	No. bbls. oil rejected.	No. bbls. oil approved.	No. bbls. gaso- line rejected for illumina- ting purposes.	Amount of fees received.	Amount of fees retained.	Expense.	Amount paid to treasurer of state.	Amount paid deputy and helper, brand- ing barrels.
Pickell, H. M. . .	Des Moines	...	1,874	1,706	\$ 808.00	\$ 100.00	\$ 89.45	\$ 118.55	\$ 75.00
Rogers, C. B. . .	Mt Pleasant	...	1,746	1,681	887.70	100.00	116.94	129.76	70.00
Cameron, E. I. . .	Davenport.	...	4,019	1,699	588.80	100.00	96.82	372.48	65.00
Burch, LeRoy . .	Cedar R. . .	...	2,394	1,790	418.40	100.00	99.94	224.46	75.00
Whitney, A. E. . .	Fayette . .	...	2,182	841	297.30	100.00	114.69	82.61	75.00
Santee, R. A. . .	Cedar Falls	...	1,877	1,175	255.20	100.00	40.05	109.15	25.00
Morgan, S. W. . .	Marshall's	...	1,756	929	268.60	100.00	23.73	144.77	10.00
Rogers, F. B. . .	Britt . . . .	...	1,638	849	208.70	83.42	85.62	59.76	10.00
Chantland, Thos.	Badger . . .	...	1,674	1,812	288.60	100.00	57.62	181.08	18.00
Scott, W. J. . .	Ida Grove .	...	1,810	619	182.90	85.72	76.69	80.35	80.00
Welch, W. A. . .	Sioux City.	...	1,785	1,223	301.40	100.00	102.48	98.97	47.25
Brown, Ed. O. . .	Council B. .	...	740	1,131	186.10	84.02	31.64	70.44	15.00
Currie, J. B. . .	Oreston . .	...	1,682	1,869	299.10	100.00	41.01	158.09	10.00
Shivvers, H. . . .	Knoxville .	...	2,468	1,099	353.70	100.00	118.62	140.08	67.50
Total . . . . .	.....	...	25,906	16,893	\$4,279.40	\$1,352.16	\$1,059.09	\$1,361.59	\$ 612.75

REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF
SEPTEMBER, 1900.

REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF
OCTOBER, 1900.

**REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF
JULY, 1908.**

Inspector.	Address.	No. bbls. oil rejected.	No. bbls. oil approved.	No. bbls. gaso- line rejected for illumina- ting purposes	Amount of fees received.	Amount of fees retained	Expenses.	Amount paid to treasurer of state.	Amount paid deputy and helper, brand- ing barrels.
Pickell, H. M.	1,180	1,918	\$ 800.80	\$ 100.00	\$ 28.95	\$ 125.85	\$ 75.00
Rogers, C. S.	835	1,628	246.90	96.23	103.02	44.55	70.00
Cameron, E. I.	1,518	2,024	551.20	100.00	94.45	159.75	85.00
Burch, LeRoy	974	1,717	269.10	100.00	89.71	79.89	75.00
Whitney, A. E.	1,208	684	188.70	84.67	104.03	...	75.00
Santee, R. A.	465	1,995	246.00	96.00	85.08	111.92	25.00
Morgan, S. W.	1,544	1,275	281.90	100.00	24.78	157.12	10.00
Rogers, F. B.	1,083	1,831	296.40	96.00	43.74	96.05	10.00
Chantland, Thos.	655	1,161	181.50	82.90	41.82	67.38	18.00
*Scott, W. J.	497	608	110.50	65.12	53.79	...	30.00
Welch, W. A.	958	1,928	238.10	100.00	78.56	114.54	47.25
Brown, Ed. O.	628	1,654	198.40	87.10	80.04	81.26	15.00
Currie, J. B.	814	899	171.80	80.82	25.19	66.79	10.00
Shivvers, H.	1,140	1,688	277.80	100.00	116.24	61.56	67.50
Total.		0	18,442	20,159	\$3,850.70	\$1,294.94	\$ 912.85	\$1,155.82	\$ 612.75

* Fees and expenses of W. J. Scott \$3.41 in excess of amount of fees received.

**REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF
AUGUST, 1908.**

REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF
SEPTEMBER, 1908.

REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF
OCTOBER, 1908.

**REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF
NOVEMBER, 1908.**

**REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF
DECEMBER, 1908.**

Inspector.	Address.	No. bbls oil rejected.	No. bbls oil approved.	No. bbls. gaso- line rejected for illumina- ting purposes.	Amount of fees received.	Amount of fees retained.	Expense.	Amount paid to treasurer of state.	Amount paid deputy and helper, brand- ing barrels.
Pickell, H M	Des Moines	..	3,941	1,026	\$ 486.10	\$ 100.00	\$ 106.85	\$ 280.25	\$ 75.00
Rogers, C B	Mt. Pleasant	..	1,530	34	187.00	84.25	102.88	.47	75.00
Cameron, E. I.	Davenport	..	2,485	1,008	358.16	100.00	97.78	100.32	25.00
Burch, LeRoy	Cedar R	..	2,254	95	319.00	100.00	111.20	108.70	75.00
Whitney A E	Fayette	..	1,544	741	228.50	94.62	181.84	2.64	75.00
Santee, R A	Cedar Falls	..	1,569	801	297.00	90.75	41.46	98.79	25.00
Morgan, S W.	Marshall	..	2,826	519	344.50	100.00	30.65	218.85	10.00
Rogers, F B	Britt	..	1,443	93	238.90	90.70	59.16	80.94	10.00
Chantland, Thos	Badger	..	1,152	504	174.00	81.15	42.78	50.79	11.50
Scott, W J	Ida Grove	..	1,378	608	193.40	85.85	50.78	20.96	30.00
Welch, W A	Sioux City	..	2,757	670	342.71	100.00	114.18	128.52	47.25
Brown, Ed C	Council Bluffs	..	1,148	111	125.90	68.97	48.60	13.39	15.00
Carrie, J. B	Creston	..	2,000	223	224.00	94.57	68.84	70.39	10.00
Shivver, H	Knoxville	..	2,600	428	302.80	100.00	117.82	65.48	67.50
Total			24,185	8,971	\$3,715.60	\$1,402.80	\$1,147.99	\$1,265.80	\$666.25

REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF
JANUARY, 1904.

REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF
FEBRUARY, 1904.

**REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF
MARCH, 1904.**

**REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF
APRIL, 1904.**

Inspector.	Address.	No. bbla. oil rejected.	No. bbla. oil approved.	No. bbla. gaso- line rejected for illumina- ting purposes.	Amount of fees received.	Amount of fees retained.	Expense.	Amount paid to treasurer of state.	Amount paid deputy and helper, brand- ing barrels.
Pickell, H. M...	Des Moines	...	2,234	1,061	\$ 328.50	\$ 100.00	\$ 98.10	\$ 136.40	\$ 75.00
Rogers, C. S....	Mt Pleasant	...	1,515	484	199.90	87.47	95.85	16.87	20.00
Cameron, E. I..	Davenport.	...	4,262	888	516.00	100.00	99.79	916.81	75.00
Burch, LeRoy.	Cedar R.	...	1,429	727	215.00	91.40	90.16	84.04	75.00
Whitney, A. E.	Fayette...	...	1,181	971	210.20	90.08	101.71	18.44	75.00
Santee, R. A...	Cedar Falls	...	977	688	166.00	79.00	84.15	52.85	75.00
Morgan, S. W.	Marshall'n	...	1,728	1,090	274.80	100.00	24.67	150.13	10.00
Rogers, F. B.	Britt .....	...	811	678	139.80	72.20	44.45	22.15	75.00
Chantland, Thos.	Badger ...	...	1,071	904	197.50	86.87	47.28	63.85	11.50
Scott, W. J....	Ida Grove.	...	1,262	202	152.40	75.00	75.00	1.70	20.00
Welch, W. A.	Sioux City.	...	1,812	965	277.70	100.00	80.30	80.40	47.00
Brown, Ed. O.	Council B.	...	1,196	1,426	262.00	100.00	44.17	117.85	15.00
Currie, J. B....	Oreston.	...	1,108	749	185.50	88.85	35.43	66.20	10.00
Shivers, H.....	Knoxville.	...	1,927	842	278.90	100.00	99.08	77.85	67.50
Total.			22,459	11,549	\$3,400.80	\$1,260.40	\$ 972.12	\$1,162.22	\$11.00

REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF
MAY, 1904.

Inspector.	Address.	No. bbls. oil rejected.	No. bbls. oil approved.	No. bbls. gaso- line rejected for illumina- ting purposes.	Amount of fees received.	Amount of fees retained.	Expense.	Amount paid to treasurer of state.	Amount paid deputy and helper, brand- ing barrels.
Pickell, H. M...	Des Moines	..	1,468	2,101	\$ 856.90	\$ 100.00	\$ 91.95	\$ 164.95	\$ 75.00
Rogers, C. S.....	Mt Pleasant	..	1,259	1,402	266.10	100.00	102.88	68.72	70.00
Cameron, E. I...	Davenport	....	2,829	2,291	462.00	100.00	108.25	258.75	85.00
Burch, LeRoy...	Cedar R...	..	874	1,888	271.20	100.00	88.68	87.57	75.00
Whitney, A. E..	Fayette	....	1,265	1,877	264.20	100.00	112.19	52.01	75.00
Santee, R. A....	Cedar Falls	....	723	1,912	263.50	100.00	40.80	123.20	25.00
Morgan, S. W...	Marshall'n	...	1,458	1,156	240.90	100.00	28.97	183.93	10.00
Rogers, F. B....	Britt	....	825	1,686	251.10	100.00	48.90	102.20	15.00
Chantland, Thos.	Badger	....	685	1,597	258.20	100.00	29.89	128.81	11.50
Scott, W. J.....	Ida Grove.	5	447	1,066	151.80	75.45	48.89	27.46	80.00
Welch, W. A...	Sioux City	....	1,360	1,141	250.10	100.00	59.60	60.50	47.00
Brown, Ed. C....	Council B.	....	1,102	685	178.70	82.17	60.48	46.05	15.00
Currie, J. B.	Creston...	118	1,282	1,091	249.10	39.77	43.81	106.02	10.00
Shivvers, H.....	Knoxville.	....	2,089	1,207	324.60	100.00	115.61	108.99	67.50
Total.	.....	128	17,411	20,550	\$3,908.40	\$1,857.89	\$ 987.85	\$1,463.66	\$ 611.00

REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF
JUNE, 1904.

Inspector.	Address.	No. bbls. oil rejected.	No. bbls. oil approved.	No. bbls. gaso- line rejected for illumina- ting purposes.	Amount of fees received.	Amount of fees retained.	Expense.	Amount paid to treasurer of state.	Amount paid deputy and helper, brand- ing barrels.
Pickell, H. M...	Des Moines	...	1,579	1,618	\$ 819.70	\$ 100.00	\$ 95.45	\$ 124.25	\$ 75.00
Rogers, C. S. ...	Mt Pleasant	....	679	1,798	247.20	59.80	83.42	64.45	70.00
Cameron, E. I. ...	Davenport.	....	1,481	1,629	811.00	100.00	97.62	118.88	85.00
Burch, LeRoy...	Cedar R...	....	1,482	2,127	860.90	100.00	93.88	167.52	75.00
Whitney, A. E..	Fayette	....	1,877	1,873	275.00	100.00	108.75	71.25	75.00
Santee, R. A....	Cedar Falls	....	891	1,159	205.00	88.75	41.52	74.78	25.00
Morgan, S. W...	Marshall'n	....	1,002	1,650	265.20	100.00	24.50	140.70	10.00
Rogers, F. B. ...	Britt.....	....	574	1,242	181.60	82.90	41.10	57.64	15.00
Chantland, Thos.	Badger	....	1,079	1,859	243.50	98.45	54.27	91.06	11.50
*Scott, W. J.	Ida Grove.	....	1,202	832	153.40	75.85	78.78	.....	80.00
Welch, W. A. ...	Sioux City.	..	1,188	1,488	261.60	100.00	72.08	89.54	45.00
Brown, Ed. C..	Council B.	...	684	775	141.40	72.85	84.86	84.19	15.00
Currie, J. B.	Creston.	....	255	1,084	128.90	69.72	18.83	40.85	10.00
Shivvers, H.....	Knoxville..	....	1,859	1,159	251.80	100.00	108.41	43.89	67.50
Total.	.....	..	14,732	18,783	\$3,846.50	\$1,287.82	\$ 947.45	\$1,112.46	\$ 609.00

*Fees and expenses of W. J. Scott \$1.23 in excess of fees collected.

REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF JULY, 1904.

Inspector.	Address.	No Barrels Inspected and Fees Received by Inspectors.				Rebates.		Total amount of fees received by the state.	Expenses.	Paid to deputies and branders.	Net amount to credit of state after fees and expenses paid.
		Oil rejected.	Oil approved.	Gasoline rejected.	Total amount of fees.	Number barrels shipped out of state	Rebate of 4 cents per barrel on goods shipped out of state				
Pickell, H. M.	Des Moines	...	1,214	2,663	387.70	221	\$ 8.84	387.70	\$ 17.15	\$ 73.00	\$ 161.12
Rogers, C. B.	Mt. Pleasant	...	1,203	1,862	262.50	731	31.24	253.66	42.40	70.00	41.28
Cameron, E. J.	Davenport	...	1,122	1,932	310.40	...	...	279.16	12.68	85.00	81.53
Burch, L. Roy	Cedar Rapids	...	992	2,499	848.10	...	...	849.10	11.21	75.00	162.89
Whitney, A. E.	Fayette	...	1,181	1,438	166.70	...	...	166.70	18.69	75.00	...
Santee, R. A.	Cedar Falls	...	848	1,471	207.40	...	...	207.40	5.46	25.00	87.59
Morgan, S. W.	Marshalltown	...	1,117	1,744	226.10	...	...	226.10	4.51	15.00	161.59
Rogers, F. B.	Britt	...	1,149	832	136.10	...	...	194.10	32.67	17.00	61.41
Chantland, Thos.	Badger	...	576	1,182	175.80	...	...	175.80	21.61	1.00	71.74
Scott, W. J.	Ida Grove	...	709	1,068	171.20	...	...	171.20	27.72	...	88.18
Welch, W. A.	Stonx City	...	1,973	1,848	326.60	576	23.04	308.64	81.74	42.00	199.82
Brown, Ed C.	Connell Bluffs	...	478	1,686	211.40	...	...	211.40	9.72	15.00	96.38
Currie, J. B.	Creston	...	624	969	169.80	91	3.64	169.80	16.97	10.00	55.01
Shivers, H.	Knoxville	...	1,039	1,554	259.30	...	...	255.60	25.79	60.00	69.87
Total.....	..	18,900	20,725	3,471.80	5,404.84	1,993	66.76	5,404.84	383.27	565.00	1,243.34

REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF AUGUST, 1904.

Inspector.	Address.	No. Barrels Inspected and Fees Received by Inspectors.				Rebates.		Total amount of fees received by the state.	Expenses.			
		Oil rejected.	Oil approved.	Gasoline rejected.	Total amount of fees.	Number barrels shipped out of state.	Rebate of 4 cents per barrel on goods shipped out of state.		Paid inspectors fees.	Inspectors expenses paid by the state.	Paid to deputies and branders.	Net amount to credit of state after fees and expenses paid.
Pickell, H. M.	Des Moines.	...	2,459	2,811	\$ 527.00	...	\$ 15.78	\$ 527.00	\$ 150.00	\$ 43.67	\$ 75.00	\$ 258.83
Rogers, C. S.	Mt. Pleasant.	...	1,181	1,366	254.70	394	...	234.94	100.00	42.05	70.00	26.89
Cameron, E. I.	Davenport.	...	1,862	2,003	456.50	567	22.08	433.82	100.00	7.80	85.00	241.02
Burch, LeRoy.	Cedar Rapids.	...	2,768	981	374.90	...	...	374.90	100.00	27.69	75.00	172.21
Whitney, A. E.	Fayette.	...	1,131	1,450	253.10	...	...	253.10	100.00	22.10	75.00	61.00
Santee, R. A.	Cedar Falls.	...	1,975	1,691	266.60	...	...	266.60	100.00	5.74	25.00	135.86
Morgan, S. W.	Marshalltown.	...	1,266	1,223	249.40	12	.48	248.92	99.85	17.66	15.00	116.41
Rogers, F. B.	Britt.	...	1,139	1,410	253.90	...	...	253.90	100.00	31.08	17.00	105.82
Chantland, Thos.	Badger.	...	1,190	1,411	260.10	...	...	260.10	100.00	28.46	16.00	115.64
Scott, W. J.	Ida Grove.	...	656	831	148.70	...	...	148.70	74.67	25.70	.....	48.33
Welch, W. A.	Sioux City.	...	1,008	1,924	298.20	828	33.12	260.08	100.00	23.97	45.00	91.11
Brown, Ed. C.	Council Bluffs.	...	1,192	2,035	322.70	...	...	322.70	100.00	20.21	15.00	187.49
Currie, J. B.	Creston.	...	1,082	476	155.80	...	...	155.80	76.45	25.02	10.00	44.33
Shivers, H.	Knoxville.	...	2,226	1,280	350.60	189	5.56	345.04	100.00	40.11	60.00	144.93
Total.....	.....	20,235	21,487	\$ 4,172.20	\$ 4,094.60	1,940	\$ 77.60	\$ 361.26	\$ 1,400.97	\$ 583.00	\$ 1,749.37	

REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF SEPTEMBER, 1904.

Inspector.	Address.	No. Barrels Inspected and Fees Received by Inspectors.				Rebates.		Total amount of fees received by the state.	Expenses.			
		Oil rejected.	Oil approved.	Gasoline rejected.	Total amount of fees.	Number barrels shipped out of state.	Rebate of 4 cents per barrel on goods shipped out of state.		Paid inspectors fees.	Inspectors expenses paid by the state.	Paid to deputies and branders.	Net amount to credit of state after fees and expenses paid.
Pickell, H. M.	Des Moines.	.....	2,856	2,907	\$ 516.80	.....	.....	\$ 516.80	\$ 150.00	\$ 66.53	\$ 75.00	\$ 221.77
Rogers, C. S.	Mt. Pleasant.	.....	2,553	2,237	479.00	219	8.76	470.24	100.00	45.23	70.00	255.01
Cameron, E. I.	Davenport.	.....	8,224	2,671	589.50	844	33.76	555.74	100.00	23.16	85.00	847.58
Burch, LeRoy	Cedar Rapids	.....	2,123	1,077	320.80	.....	.....	320.80	100.00	21.89	75.00	128.91
Whitney, A. E.	Fayette.	.....	8,567	1,071	463.80	.....	.....	463.80	100.00	60.17	75.00	228.63
Santee, R. A.	Cedar Falls	.....	2,002	1,644	364.60	.....	.....	364.60	100.00	16.81	25.00	222.79
Morgan, S. W.	Marshalltown.	.....	1,626	1,908	252.90	21	84	252.06	100.00	16.90	15.00	120.16
Rogers, F. B.	Britt.	.....	1,618	1,064	266.70	.....	.....	266.70	100.00	42.34	17.00	107.96
Chantland, Thos.	Badger.	.....	2,207	1,878	403.50	.....	.....	403.50	100.00	45.36	9.00	254.14
Scott, W. J.	Ida Grove.	1	1,543	1,057	260.10	.....	.....	260.10	100.00	57.05	90.00	18.05
Welch, W. A.	Stoux City	1	1,682	1,071	275.40	700	28.00	247.40	100.00	53.42	40.00	53.93
Brown, Ed C	Council Bluffs	.....	1,597	1,972	255.90	.....	.....	255.90	100.00	21.95	10.00	123.95
Currie, J. B.	Oreston.	.....	1,443	1,423	286.60	.....	.....	286.60	100.00	27.57	10.00	149.03
Shivers, H.	Knoxville	.....	1,818	1,573	289.10	22	.88	288.22	100.00	18.02	60.00	110.20
Total.....	.....	2	29,847	20,988	\$ 5,028.70	1,806	\$ 72.24	\$ 4,956.46	\$ 1,450.00	\$ 515.90	\$ 656.00	\$ 2,884.56

* Salary of brander for months of July, August and September.

REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF OCTOBER, 1904.

Inspector.	Address.	No. Barrels Inspected and Fees Received by Inspectors.				Rebates.		Total amount of fees received by the state.	Expenses.			
		Oil rejected.	Oil approved.	Gasoline rejected.	Total amount of fees.	Number barrels shipped out of state.	Rebate of 1 cent per barrel on goods shipped out of state.		Paid inspectors fees.	Inspectors expenses paid by the state.	Paid to deputies and breaders.	Net amount to credit of state after fees and expenses paid.
Pickell, H. M.	Des Moines.	1	8,080	1,650	473.10	...	...	473.10	150.00	22.22	75.00	225.88
Rogers, C. S.	...	...	760	816	157.00	258	10.32	147.28	76.90	32.18	70.00	...
Cameron, E. I.	...	...	8,651	1,594	524.30	664	26.26	498.24	100.00	14.99	50.00	553.25
Birch, LeRoy	...	...	8,445	1,691	533.00	...	...	533.00	100.00	33.57	75.00	535.08
Whitney, A. E.	...	...	2,533	1,214	374.70	...	...	374.70	100.00	60.59	75.00	140.11
Santos, R. A.	...	...	1,141	1,073	221.40	...	...	221.40	92.85	9.49	35.00	94.06
Morgan, S. W.	Marshalltown	...	8,354	845	330.30	112	4.43	325.87	100.00	14.89	15.00	155.96
Rogers, F. B.	Britt	...	1,548	956	250.40	...	...	250.40	100.00	34.80	17.00	99.10
Chantland, Thos.	Badger	3	1,508	900	230.00	...	...	230.70	36.15	33.79	9.60	92.16
Scott, W. J.	Ida Grove	...	1,849	254	110.30	...	...	110.30	35.00	18.87	30.00	...
Welch, W. A.	Stonx City	...	1,859	1,208	314.20	440	17.00	297.20	100.00	75.03	4.00	31.57
Brown, Ed. O.	Council Bluffs	...	1,631	1,013	243.90	...	...	243.90	100.00	25.11	...	184.79
Currie, J. B.	Oreston	...	1,403	754	210.40	...	...	210.40	91.60	48.53	7.40	63.81
Shivers, H.	Knoxville	...	2,303	879	334.20	38	1.52	322.68	100.00	33.43	60.00	124.25
Total.	...	4	28,300	14,961	4,815.50	1,612	60.48	4,255.02	1,371.57	403.55	548.90	1,907.94

* Fees and expenses of O. S. Rogers exceeded amount collected by \$32.80.

† Fees and expenses of W. J. Scott exceeded amount collected by \$5.14.

REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF NOVEMBER, 1904.

Inspector.	Address.	No. Barrels Inspected and Fees Received by Inspector.				Rebate.		Total amount of fees received by the state.	Expenses.			
		Oil rejected.	Oil approved.	Gasoline rejected.	Total amount of fees.	Number barrels shipped out of state.	Rebate of 4 cents per barrel on goods shipped out of state.		Paid inspectors fees.	Inspectors expenses, paid by the state.	Paid to deputies and branders.	Net amount to credit of state after fees and expenses paid.
Pickell, H. M.	Des Moines.	.....	4,238	1,755	599.30	.....	.....	599.30	150.00	28.70	75.00	\$ 345.60
Rogers, C. S.	Mt. Pleasant.	.....	2,317	504	902.10	234	9.86	292.74	100.00	38.49	70.00	84.25
Cameron, E. I.	Davenport.	.....	3,468	1,345	480.80	885	35.40	444.40	100.00	20.46	50.00	274.44
Burch, LeRoy.	Cedar Rapids.	.....	2,622	900	342.20	.....	.....	342.20	100.00	23.53	75.00	148.67
Whitney, A. E.	Fayette.	.....	1,552	625	217.70	.....	.....	217.70	91.93	36.29	75.00	14.48
Santee, R. A.	Cedar Falls.	.....	1,414	957	237.10	.....	.....	237.10	96.78	19.99	25.00	98.83
Morgan, S. W.	Marshalltown.	.....	2,555	.....	255.50	.....	.....	255.50	100.00	26.41	10.00	119.09
Rogers, F. S.	Britt.	.....	2,029	680	270.40	127	5.08	265.82	100.00	50.74	30.00	85.08
Chantland, Thos.	Badger.	.....	1,599	545	219.40	.....	.....	219.40	92.35	36.84	9.50	80.71
Scott, W. J.	Ida Grove.	.....	1,680	513	218.20	.....	.....	218.20	92.05	43.87	30.00	52.28
Welch, W. A.	Sioux City.	1	8,650	2,132	568.90	520	20.80	547.50	100.00	78.15	40.00	829.85
Brown, Ed. O.	Council Bluffs.	.....	1,804	887	269.10	.....	.....	269.10	100.00	43.22	.....	126.48
Currie J. B.	Creston.	.....	1,799	332	213.10	.....	.....	213.10	90.77	38.96	6.60	76.77
Shivers, H.	Knoxville.	.....	2,863	254	311.70	66	2.64	309.06	100.00	86.64	60.00	62.42
Total.....	.....	1	33,569	11,479	\$ 4,504.90	1,832	\$ 73.28	\$ 4,431.62	\$ 1,413.88	\$ 572.29	\$ 556.10	\$ 1,889.85

REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF DECEMBER, 1904.

Inspector.	Address.	No. Barrels Inspected and Fees Received by Inspectors.				Rebates.		Total amount of fees received by the state.	Expenses.			
		Oil rejected.	Oil approved.	Gasoline rejected.	Total amount of fees.	Number barrels shipped out of state.	Rebate of 4 cents per barrel on goods shipped out of state.		Paid inspectors fees.	Inspectors expenses paid by the state.	Paid to deputies and branders.	Net amount to credit of state after fees and expenses paid.
Pickell, E. M.	Des Moines.	.....	4,876	1,870	\$ 574.60	...	\$	\$ 574.60	\$ 150.00	\$ 31.41	\$ 75.00	\$ 318.19
Rogers, C. S.	Mt. Pleasant.	.....	2,240	550	279.00	...	10.12	268.88	100.00	34.98	70.00	63.95
Cameron, E. I.	Davenport.	.....	2,854	1,877	423.10	952	38.08	385.02	100.00	9.19	50.00	225.83
Burch, LeRoy	Cedar Rapids	.....	2,188	648	283.10	...	...	283.10	100.00	29.16	75.00	78.94
*Whitney, A. E.	Fayette.	.....	1,780	370	210.00	155	6.20	203.80	88.45	49.08	75.00	...
Santee, K. A.	Cedar Falls.	.....	1,575	847	242.20	...	...	242.20	98.05	19.91	25.00	98.24
Morgan, S. W.	Marshalltown.	.....	2,280	452	273.20	...	...	273.20	100.00	21.10	15.00	137.10
Rogers, F. B.	Britt.	.....	1,980	578	250.80	238	11.52	239.28	100.00	48.12	30.00	61.16
Chantland, Thos.	Badger.	.....	1,757	775	253.20	...	...	253.20	100.00	35.06	9.50	108.64
Scott, W. J.	Ida Grove.	.....	1,607	788	239.50	...	...	239.50	97.35	30.72	30.00	81.43
Welch, W. A.	Sioux City.	.....	2,987	635	357.20	244	9.76	347.44	100.00	17.80	40.00	189.64
Brown, Ed. C.	Council Bluffs.	.....	2,004	307	231.10	...	...	231.10	95.28	33.56	.....	103.26
Currie, J. B.	Creston.	.....	943	909	185.20	...	...	185.20	88.80	27.25	7.80	66.35
Shivvers, H.	Knoxville.	.....	2,981	636	355.70	54	2.16	353.54	100.00	31.53	60.00	162.01
Total	.....	.....	31,852	10,227	\$ 4,157.90	1,946	\$ 77.84	\$ 4,080.06	\$ 1,412.93	\$ 418.82	\$ 532.30	\$ 1,694.74

*Fees and expenses of A. E. Whitney were \$8.73 in excess of fees received.

REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF JANUARY, 1905.

Inspector.	Address.	No. Barrels Inspected and Fees Received by Inspectors.		Rebates		Total amount of fees received by the state.	Expenses.				Net amount to credit of state after fees and expenses paid.
		Total amount of fees.	Number barrels shipped out of state.	Rebate of 4 cents per barrel on goods shipped out of state.	Paid inspectors fees.		Inspectors expenses paid by the state.	Paid to deputies and branders.			
Pickell, H. M.	Des Moines.....	497.60	330	13.90	487.60	150.00	14.42	75.00	297.78		
Rogers, U. B.	Mount Pleasant....	870.60	880	85.20	957.40	100.00	48.64	70.00	143.76		
Champron, E. I.	Davenport.....	466.50	880	36.20	430.30	100.00	18.46	60.00	278.84		
Burch, LeRoy	Cedar Rapids.....	961.90	...	...	261.90	101.00	21.98	75.00	64.92	
Whitney, A. E.	Fayette.....	911.60	...	...	311.60	100.00	5.68	75.00	88.92	
Senter, R. A.	Cedar Falls.....	168.70	...	...	168.70	74.67	10.17	25.00	58.93	
Morgan, S. W.	Marshalltown.....	810.60	...	11.64	810.60	100.00	13.29	15.00	182.91		
Rogers, F. B.	Britt.....	263.40	991	...	251.76	100.00	30.98	30.00	90.88		
Chantland, Thos	Badger.....	299.20	...	...	239.20	97.30	47.64	9.50	84.96	
Scott, W. J.	Ida Grove.....	177.40	...	...	177.40	81.85	32.56	60.00	82.99	
Welch, W. A.	Sioux City.....	311.30	514	20.56	290.74	100.00	21.15	40.00	129.59		
Cousins, L. B.	Council Bluffs.....	912.50	...	...	912.50	90.62	19.88	...	102.00	
Currie, J. B.	Creston.....	252.40	...	...	253.90	100.00	58.52	8.65	108.69	
Shivers, H.	Knoxville.....	480.80	191	6.24	423.06	100.00	33.48	60.00	281.69		
Total		824.40	2,146	\$ 86.84	\$ 4,196.56	\$ 1,869.44	\$ 896.00	\$ 578.15	\$ 1,890.97		

REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF FEBRUARY, 1906.

Inspector.	Address.	No. Barrels Inspected and Fees Received by Inspectors.				Rebates.		Total amount of fees received by the state.	Expenses.			
		Oil rejected.	Oil approved.	Gasoline rejected.	Total amount of fees.	Number barrels shipped out of state.	Rebate of 4 cents per barrel on goods shipped out of state.		Paid inspectors fees.	Inspectors expenses paid by the state.	Paid to deputies and branders.	Net amount to credit of state after fees and expenses paid.
Pickell, H. M.	Des Moines	185	3,612	1,186	496.80	185	\$ 7.40	\$ 485.90	\$ 150.00	\$ 46.28	\$ 75.00	\$ 214.62
Rogers, C. B.	Mt. Pleasant	.....	2,175	1,049	322.40	236	11.44	310.96	100.00	27.36	70.00	118.60
Cameron, E. I.	Davenport	.....	2,583	1,667	425.80	725	29.00	396.80	100.00	16.14	50.00	230.66
Burch, LeRoy	Cedar Rapids	.....	1,425	1,218	264.80	.....	.....	264.80	100.00	35.17	75.00	54.63
Whitney, A. E.	Fayette	.....	2,188	1,338	382.20	.....	.....	382.60	100.00	42.62	75.00	164.98
Santee, R. A.	Cedar Falls	.....	1,421	1,324	261.50	.....	.....	264.50	100.00	18.55	25.00	120.95
Morgan, S. W.	Marshalltown	.....	1,204	859	206.80	.....	.....	206.80	89.07	15.25	15.00	85.98
Rogers, F. B.	Britt	.....	2,102	255	285.70	197	7.88	227.82	96.42	52.99	30.00	48.41
Chantland, Thos.	Badger	.....	1,467	839	230.60	.....	.....	230.60	95.15	46.11	8.00	81.84
Scott, W. J.	Ida Grove	.....	1,163	514	167.70	.....	.....	167.70	79.42	28.54	30.00	29.74
Welch, W. A.	Sioux City	.....	2,091	1,442	353.80	250	10.00	343.80	100.00	59.59	40.00	168.71
Cousins, L. B.	Council Bluffs	.....	2,259	477	273.60	.....	.....	273.60	100.00	.....	.....	173.60
Currie, J. B.	Oreston	.....	1,492	593	207.80	.....	.....	207.80	89.45	82.15	..	86.30
Shivers, H.	Knoxville	.....	2,353	416	327.40	51	2.04	325.36	100.00	40.59	60.00	124.77
Total	.....	185	28,343	18,020	\$ 4,154.80	1,694	\$ 67.76	\$ 4,087.04	\$ 1,892.51	\$ 442.84	\$ 553.00	\$ 1,692.19

REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF MARCH, 1915.

Inspector.	Address.	No. Barrels Inspected and Fees Received by Inspectors.				Rebates.		Total amount of fees received by the state.	Expenses.			
		Oil rejected.	Oil approved.	Gasoline rejected.	Total amount of fees.	Number barrels shipped out of state.	Rebate of 4 cents per barrel on goods shipped out of state.		Paid inspectors fees.	Inspectors expenses paid by the state.	Paid to deputies and branders.	Net amount to credit of state after fees and expenses paid.
Pickell, H. M.	Des Moines.	...	3,539	1,985	552.40	313	\$ 12.52	\$ 351.88	\$ 150.00	\$ 33.20	\$ 75.00	\$ 281.59
Rogers, C. S.	Mt. Pleasant.	...	1,871	1,660	253.10	230	9.20	243.90	100.00	37.25	70.00	38.62
Cameron, E. I.	Davenport.	...	2,816	1,778	459.40	847	33.88	425.52	100.00	10.06	50.00	265.46
Burch, LeRoy.	Cedar Rapids.	...	2,730	1,851	408.10	...	...	408.10	100.00	95.64	75.00	137.46
Whitney, A. E.	Fayette	...	2,563	399	296.20	...	...	296.20	100.00	33.79	75.00	87.41
Sauter, R. A.	Cedar Falls.	...	1,680	762	244.20	...	...	244.20	98.55	16.92	25.00	103.78
Morgan, S. W.	Marshalltown.	...	2,180	844	302.40	...	...	302.40	1-0.00	21.45	15.00	166.92
Rogers, F. B.	Britt.	236	1,901	1,128	266.50	207	8.28	258.22	100.00	28.98	30.00	99.24
Chantland, Thos.	Badger.	...	1,336	1,164	250.00	...	...	250.00	100.00	32.90	9.50	107.00
Scott, W. J.	Ida Grove.	...	1,486	1,563	204.90	...	...	204.90	88.72	37.11	30.00	49.07
Welch, W. A.	Stoux City.	...	3,915	1,230	519.50	33	17.32	502.18	100.00	50.28	40.00	311.90
Cousins, L. B.	Connell Bluffs.	...	2,018	805	282.80	...	...	282.80	100.00	20.27	...	162.03
Currie, J. B.	Oreston.	...	1,652	914	256.60	...	...	256.60	100.00	40.87	...	115.73
Shivers, H.	Knoxville.	...	3,810	1,045	454.50	47	1.88	492.62	100.00	29.86	60.00	242.76
Total		236	32,397	14,668	4,730.10	2,077	\$ 83.05	4,647.02	\$ 1,437.27	\$ 488.73	\$ 554.50	\$ 2,100.52

REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF APRIL, 1906.

Inspector.	Address.	No Barrels Inspected and Fees Received by Inspectors.				Rebates.		Total amount of fees received by the state.	Expenses.			
		Oil rejected.	Oil approved.	(Gasoline rejected.	Total amount of fees.	Number barrels shipped out of state.	Rebate of 4 cents per barrel on goods shipped out of state.		Paid inspectors fees.	Inspectors ex-penses paid by the state.	Paid to deputies and branders.	Net amount to credit of state after fees and expenses paid.
Pickell, H. M.	Des Moines	.....	1,988	2,027	\$ 399.50	.....	\$ 8.84	\$ 399.50	\$ 187.88	\$ 15.86	\$ 75.00	\$ 171.26
Rogers, C. S.	Mt. Pleasant	.....	1,259	1,008	226.70	221	.....	217.86	94.18	24.42	70.00	29.26
Cameron, E. I.	Davenport	.....	2,037	2,067	409.40	686	27.44	381.96	100.00	11.66	50.00	220.80
Burch, LeRoy	Cedar Rapids	.....	1,865	684	252.90	.....	.....	252.90	100.00	14.64	75.00	63.26
Whitney, A. F.	Fayette	.....	1,169	1,108	227.70	95	3.50	228.90	93.43	25.15	75.00	80.82
Santee, R. A.	Cedar Falls	.....	512	1,122	163.40	.....	.....	163.40	78.85	7.92	25.00	52.13
Morgan, S. W.	Marshalltown	.....	2,265	1,079	334.40	.....	.....	334.40	100.00	12.35	10.00	212.05
Rogers, F. B.	Britt	.....	1,500	948	257.80	282	11.28	246.52	103.00	38.16	81.00	78.86
Chantland, Thos.	Badger	.....	1,018	388	138.60	.....	.....	138.60	72.15	20.06	9.50	36.90
Scott, W. J.	Ida Grove	.....	793	656	144.90	.....	.....	144.90	73.72	24.12	90.00	17.06
Welch, W. A.	Sioux City	.....	1,541	2,114	365.50	348	18.92	351.58	100.00	36.60	40.00	174.98
Cousins, L. B.	Council Bluffs	.....	1,230	1,283	251.30	.....	.....	251.30	100.00	73.77	.....	77.53
Currie, J. B.	Oreston	.....	633	469	110.20	.....	.....	110.20	65.05	13.16	.....	31.99
Shivers, H.	Knoxville	.....	1,640	1,046	268.60	78	2.92	265.68	100.00	18.77	60.00	86.91
Total.....	.....	19,520	15,989	\$ 3,550.90	1,705	\$ 68.20	\$ 8,482.70	\$ 1,314.26	\$ 386.68	\$ 549.50	\$ 1,282.31	

REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF MAY, 1905.

Inspector.	Address.	No. Barrels Inspected and Fees Received by Inspectors.				Rebates.		Total amount of fees received by the state.	Expenses.			
		Oil rejected.	Oil approved.	Gasoline rejected.	Total amount of fees.	Number barrels shipped out of state.	Rebate of 4 cents per barrel on goods shipped out of state.		Paid inspectors fees.	Inspectors expenses paid by the state.	Paid to deputies and branders.	Net amount to credit of state after fees and expenses paid.
Pickell, H. M.	Des Moines.	.....	2,096	1,984	\$ 408.00	.....	.....	\$ 408.00	\$ 188.25	\$ 17.30	\$ 75.00	\$ 172.45
Rogers, C. S.	Mt. Pleasant.	.....	1,026	1,428	244.90	216	8.64	286.26	98.78	15.04	70.00	52.49
Cameron, E. I.	Davenport.	.....	1,686	2,119	575.50	824	82.96	842.54	100.00	9.98	50.00	182.61
Burch, LeRoy	Cedar Rapids	.....	1,199	1,208	240.70	.....	.....	240.70	97.67	7.88	75.00	60.65
Whitney, A. E.	Fayette.	.....	1,087	482	153.90	.....	.....	153.90	76.78	19.81	75.00	.....
Santee, B. A.	Cedar Falls	.....	989	927	186.60	.....	.....	186.60	84.15	10.70	25.00	66.75
Morgan, S. W.	Marshalltown.	.....	1,875	1,078	245.30	.....	.....	245.30	98.82	5.92	10.00	180.58
Rogers, F. B.	Britt.	.....	926	1,854	228.00	212	8.48	219.52	94.50	28.45	80.00	68.57
Chantland, Thos.	Badger.	.....	1,825	1,150	247.50	.....	.....	247.50	99.87	86.48	9.50	102.15
Scott, W. J.	Ida Grove	.....	837	552	188.90	.....	.....	188.90	72.22	18.41	90.00	18.27
Welch, W. A.	Sioux City.	.....	1,136	1,256	239.20	354	14.16	225.04	97.80	35.22	40.00	52.52
Cousins, L. B.	Council Bluffs.	.....	1,430	675	210.50	.....	.....	210.50	90.12	7.42	.....	112.96
Currie, J. B.	Oreston.	.....	963	897	186.00	.....	.....	186.00	84.00	19.42	.....	82.58
Shivers, H.	Knoxville	.....	1,272	1,168	248.50	32	1.28	242.22	98.88	82.08	60.00	1.76
Total		17,247	16,218	\$ 8,346.50	1,688	\$ 65.52	\$ 8,280.98	\$ 1,830.24	\$ 811.56	\$ 549.50	\$ 1,104.82	

*Fees and expenses of A. E. Whitney exceeded amount collected by \$14.64.

REPORT OF INSPECTIONS, SALARY AND EXPENSES FOR THE MONTH OF JUNE, 1905.

Inspector.	Address.	No. Barrels Inspected and Fees Received by Inspectors.				Rebates.		Total amount of fees received by the state.	Expenses.			
		Oil rejected.	Oil approved.	Gasoline rejected.	Total amount of fees.	Number barrels shipped out of state.	Rebate of 4 cents per barrel on goods shipped out of state.		Paid inspectors fees.	Inspectors expenses paid by the state.	Paid to deputies and branders.	Net amount to credit of state after fees and expenses paid.
Pickell, H. M	Des Moines	.....	1,213	3,297	451.00	.....	.....	451.00	150.00	23.68	75.00	202.32
Rogers, C. S.	Mt. Pleasant	.....	1,599	1,681	323.00	222	\$ 9.12	318.83	100.00	30.25	70.00	118.68
Cameron, E. I.	Davenport	.....	1,882	3,734	531.60	1,073	42.92	518.68	100.00	8.26	50.00	860.43
Burch, LeRoy	Cedar Rapids	.....	974	2,775	374.90	.....	.....	374.90	100.00	20.23	75.00	179.62
Whitney, A. E	Fayette	10	1,866	2,355	423.10	.....	.....	423.10	100.00	23.60	75.00	219.50
Santee, R. A	Cedar Falls	.....	477	1,823	230.00	.....	.....	230.00	95.00	10.48	25.00	99.57
Morgan, S. W.	Marshalltown	.....	1,849	1,533	338.20	7	.28	337.92	100.00	12.61	10.00	215.31
Rogers, F. B	Britt	.....	955	1,532	253.70	114	4.56	249.14	100.00	84.52	30.00	84.62
Chantland, Thos.	Badger	.....	679	1,771	245.00	.....	.....	245.00	93.75	29.61	9.50	107.14
Scott, W. J.	Ida Grove	.....	767	1,198	193.50	.....	.....	193.50	86.62	21.08	30.00	58.80
Welch, W. A	Sioux City	.....	1,401	1,803	320.70	455	18.20	302.50	100.00	36.95	40.00	125.55
Cousins, L. B.	Council Bluffs	.....	860	1,690	255.00	.....	.....	255.00	100.00	7.55	.....	147.45
Currie J. B.	Oreston	.....	963	1,053	200.60	.....	.....	200.60	87.65	23.68	.....	84.82
Shivvers, H.	Knoxville	.....	1,579	1,117	269.60	32	1.28	268.32	100.00	35.35	60.00	72.97
Total	.....	10	17,054	27,415	\$ 4,447.90	1,909	\$ 76.86	\$ 4,371.54	\$ 1,418.03	\$ 377.90	\$ 549.50	\$ 2,026.23

CONSOLIDATION OF INSPECTIONS BY MONTHS FOR THE YEAR BEGINNING
JULY 1, 1903, AND ENDING JUNE 30, 1904.

Month.	No. bbls. oil rejected.	No. bbls. oil approved.	No. bbls. gaso- line rejected for illumina- ting purposes	Amount of fees received.	Amount of fees retained.	Expense.	Amount paid to treasurer of state.	Amount paid deputy and helper, brand- ing barrels.
1903								
*July	6	13,442	20,159	\$3,360.70	\$1,204.94	\$ 918.85	\$1,155.32	\$ 612.75
August		25,906	16,888	4,279.40	1,353.16	1,069.66	1,861.58	612.73
September	137	24,943	14,606	3,968.60	1,331.28	1,008.03	1,629.29	612.73
October	65	80,197	13,316	4,357.82	1,365.77	1,114.60	1,877.43	612.75
November	124	82,833	6,367	3,932.90	1,327.86	1,177.88	1,427.16	606.25
December		28,185	8,971	3,715.60	1,302.86	1,147.38	1,265.86	606.25
1904								
January		25,890	10,334	3,572.40	1,285.78	1,094.80	1,191.82	606.25
February	4	23,887	11,263	3,515.40	1,284.85	1,069.88	1,140.64	611.25
March		27,394	10,253	3,764.70	1,317.99	1,166.53	1,280.13	611.25
April		22,459	11,549	3,400.80	1,266.46	972.12	1,162.22	611.00
May	123	17,411	20,550	3,808.40	1,357.39	987.85	1,463.66	611.00
*June		14,732	18,733	3,346.50	1,287.82	947.45	1,112.46	606.00
Total	450	286,784	162,989	\$45,023.20	\$15,781.19	\$12,684.58	\$16,567.07	\$ 7,823.25

*Salary and expenses of W. J. Scott for July, 1903, and June, 1904, exceeded fees collected by \$9.64.

CONSOLIDATED REPORT OF INSPECTIONS BY MONTHS FOR THE YEAR BEGINNING JULY 1, 1904, AND ENDING JUNE 30, 1905.

Month.	No. Barrels Inspected and Fees Received by Inspectors.				Rebates.		Total amount of fees received by the state.	Expenses.			
	Oil rejected.	Oil approved.	Gasoline rejected.	Total amount of fees.	Number barrels shipped out of state.	Rebate of 4 cents per barrel on goods shipped out of state.		Paid inspectors fees.	Inspectors expenses paid by the state.	Paid to deputies and branders.	Net amount to credit of state after fees and expenses paid.
1904											
July	18,990	20,726	3,471.60	1,609	66.76	8,404.84	1,318.28	288.27	565.00	\$ 1,248.84	
August	20,235	21,487	4,172.20	1,940	77.60	4,094.60	1,400.97	361.26	583.00	1,749.57	
September	29,347	20,938	5,028.70	1,806	72.24	4,956.46	1,450.00	515.90	656.00	2,334.56	
October	28,200	14,951	4,815.50	1,512	60.48	4,255.02	1,371.57	462.55	548.90	1,907.94	
November	33,589	11,479	4,504.90	1,832	73.28	4,431.62	1,413.88	572.29	556.10	1,889.85	
December	31,352	10,227	4,157.90	1,946	77.84	4,080.06	1,412.93	418.82	562.30	1,691.74	
1905											
January	32,811	10,033	4,234.40	2,146	85.84	4,198.56	1,399.44	895.00	573.16	1,880.97	
February	28,343	13,020	4,154.80	1,694	67.76	4,087.04	1,399.51	442.34	553.00	1,692.19	
March	32,397	14,068	4,780.10	2,077	83.06	4,647.02	1,437.27	488.73	554.50	2,166.52	
April	19,520	15,989	3,550.90	1,705	68.20	3,482.70	1,314.26	336.63	549.50	1,282.81	
May	17,247	16,218	3,346.50	1,638	65.52	3,280.98	1,330.21	311.56	549.50	1,104.82	
June	17,064	27,415	4,447.90	1,909	76.86	4,371.54	1,418.02	377.80	549.50	2,026.22	
Total	304,065	197,151	\$50,165.40	21,874	\$ 874.96	\$49,290.44	\$16,661.32	\$ 4,966.15	\$ 6,800.43	\$20,921.88	
Reconciliation—deduct excess of expenses over fees collected, as shown by monthly reports for the year											\$ 59.31
Net balance to credit of the state											\$20,862.52

Inspector.	Address.	No. barrels oil rejected	No. barrels oil approved.	No. barrels gasoline rejected for illuminating purposes.	Amount of fees received.	Amount of fees received.	Expense.	Amount paid to treasurer of state.	Amount paid deputy and helper, branding barrels.	Per cent of expenses to amount of fees received.	Per cent of amount paid the state to amount of fees received.
Pickell, H. M.	Des Moines.	...	28,343	15,898	\$ 4,423.60	\$ 1,200.00	\$ 1,155.90	\$ 2,067.70	\$ 900.00	26.35	46.51
Rogers, C. S.	Mt. Pleasant.	10	20,220	12,361	3,259.10	1,170.25	1,294.96	793.89	840.00	36.69	24.35
Cameron, E. I.	Davenport.	...	31,950	16,157	4,810.70	1,200.00	1,187.24	2,423.46	1,020.00	24.68	50.37
Burch, LeRoy.	Cedar Rapids.	137	21,748	13,956	3,584.10	1,183.10	1,175.43	1,225.57	900.00	32.79	34.19
Whitney, A. E.	Fayette.	...	20,522	9,825	3,034.70	1,044.73	1,277.03	562.94	900.00	45.37	18.55
Santee, R. A.	Cedar Falls.	...	14,684	13,218	2,787.70	1,123.60	518.45	1,145.65	900.00	18.61	41.09
Morgan, S. W.	Marshalltown.	...	24,484	11,333	3,576.70	1,200.00	840.17	2,036.53	120.00	9.51	36.98
Rogers, F. B.	Britt.	...	15,299	10,677	2,597.60	1,085.48	655.34	856.78	145.00	25.22	32.99
Chantland, Thos.	Badger.	...	15,816	10,763	2,636.90	1,192.50	578.64	975.76	164.00	21.74	36.72
Scott, W. J.	Ida Grove.	5	13,804	6,145	1,985.40	948.82	854.79	201.43	860.00	42.33	10.09
Welch, W. A.	Stonx City.	185	22,528	13,982	3,669.50	1,200.00	1,167.73	1,301.77	584.25	31.82	35.44
Brown, Ed. C.	Council Bluffs.	...	15,532	8,734	2,429.60	1,024.17	522.81	883.12	180.00	21.49	36.84
Currie, J. B.	Oreston.	122	15,376	9,023	2,452.00	1,048.54	476.95	926.51	120.00	19.45	37.77
Shivers, H.	Knockville.	...	26,529	10,927	3,745.60	1,200.00	1,379.64	1,163.96	810.00	33.86	31.12
Total.		459	286,784	162,969	\$ 45,023.20	\$ 15,781.19	\$ 12,684.58	\$ 16,567.07	\$ 7,828.25	28.17	36.79

* Fees and expenses of W. J. Scott for July, 1903, and June, 1904, exceeded amount of fees received by \$9.64.

CONSOLIDATION OF INSPECTIONS, SALARY AND EXPENSES OF EACH INSPECTOR INCLUDING INSPECTORS' FEES FOR THE YEAR
ENDING JUNE 30, 1906, ALSO PER CENT OF EXPENSES AND AMOUNT TO CREDIT OF THE STATE RELATIVE TO AMOUNT OF
FEES RECEIVED.

Inspector.	No. Barrels Inspected and Fees Received by Inspectors.				Rebates.		Total amount of fees received by the state.	Expenses.				Per cent of expenses to amount of fees received.	Per cent of amount paid to state to amount of fees received.
	Oil rejected.	Oil approved.	Gasoline rejected.	Total amount of fees.	Number barrels shipped out of state.	Rebate of 4 cents per barrel on goods shipped out of state.		Paid inspectors fees.	Inspectors expenses paid by the state.	Paid to deputies and branders.	Net amount to credit of state after fees and expenses paid.		
Pickell, H. M.....	186	83,818	24,644	\$ 5,864.80	498	\$ 19.92	\$ 5,844.88	\$ 1,760.00	\$ 380.91	\$ 900.00	\$ 2,823.91	51.70	48.30
Rogers, O. S.....		21,374	13,432	3,480.60	8,090	123.60	3,357.00	1,169.81	414.27	840.00	3,965.72	72.24	27.80
Cameron E. I.....		30,858	24,155	5,501.30	9,728	389.12	5,112.18	1,200.00	161.74	715.00	3,035.44	40.62	59.38
Burch, LeRoy.....		24,346	15,714	4,006.00			4,006.00	1,197.67	341.64	900.00	1,568.69	60.89	39.11
Whitney, A. E.....	10	23,793	11,083	3,439.10		10.00	3,429.10	1,123.55	448.57	900.00	1,630.35	70.84	29.61
Santee, R. A.....		13,971	13,996	2,796.70			2,796.70	1,112.75	152.09	300.00	1,231.86	45.95	44.05
Morgan, S. W.....		22,624	11,122	3,474.60	152	6.08	3,368.52	1,187.74	188.37	160.00	1,832.41	46.81	54.69
Rogers, F. B.....	236	17,842	11,881	2,945.90	1,718	68.72	2,927.18	1,177.94	501.23	308.00	940.01	67.89	32.11
Chantland, Thos.....	3	16,716	12,267	2,898.50			2,898.50	1,131.67	413.81	110.00	1,243.02	58.55	41.45
Scott, W. J.....	1	13,515	8,267	2,178.30			2,178.30	991.99	365.25	880.00	464.20	78.84	21.16
Welch, W. A.....	2	24,947	17,495	4,244.40	5,662	226.48	4,017.92	1,197.80	499.90	487.00	1,833.72	54.37	45.63
Cousins, L. B.....		18,070	12,823	3,039.30			3,039.30	1,166.87	282.66	40.00	1,550.27	48.93	51.07
Currie, J. B.....		15,103	9,211	2,431.40			2,431.40	1,046.09	355.11	50.45	939.75	60.08	39.92
Shivers, H.....		27,089	11,556	3,864.61	776	31.04	3,833.46	1,198.38	480.60	720.00	1,434.48	61.80	38.20
Total.....	498	304,065	187,151	\$ 50,165.40	21,874	\$ 874.96	\$ 49,290.44	\$ 16,661.32	\$ 4,966.15	\$ 6,800.45	\$20,921.83	57.49	42.51
Reconciliation—deduct excess of expenses over fees received as shown by monthly reports.....											59.31		
Net balance to the credit of the state.....											\$21,862.52		

SECOND REPORT

OF THE

Iowa Library Commission

1903-1905

Published by Authority of the General Assembly

DE- MOINES
G. MURPHY STATE PRINTER

IOWA LIBRARY COMMISSION.

OFFICE: State House, Des Moines.

OBJECT: To aid in the establishment and development of free and other public libraries in the State of Iowa.

MEMBERS EX-OFFICIIS.

JOHNSON BRIGHAM, State Librarian, *President*.

GEORGE E. MACLEAN, President State University.

JOHN F. RIGGS, State Superintendent Public Instruction.

MEMBERS APPOINTED BY THE GOVERNOR.

MRS. HORACE M. TOWNER, Corning.

MRS. DAVID W. NORRIS, Grinnell.

MRS. HENRY J. HOWE, Marshalltown.

CAPT. W. H. JOHNSTON, Ft. Dodge.

MISS ALICE S. TYLER, *Secretary*.

LETTER OF TRANSMITTAL.

TO HONORABLE ALBERT B. CUMMINS, GOVERNOR OF IOWA:

In compliance with Section 5, Chapter 173, Laws of the 29th General Assembly, I herewith transmit the second report of the Iowa Library Commission.

ALICE S. TYLER,
Secretary Iowa Library Commission.

STATE OF IOWA

LIBRARY COMMISSION.

The forward movement of library affairs in the state of Iowa during the biennial period covered by this report has been steady, and permanence and stability characterize the present condition of the work. The impetus given by the erection of new buildings, as noted in the previous report, has been felt during this period, and the free public libraries of the state are now developing plans for future growth under the conditions which the occupancy of a building of their own creates for permanency and service.

It has seemed to be the immediate task of the Library Commission to forward the interests of the free public libraries first, and aid in their establishment, because of the close connection of free libraries with the welfare of the communities in which they exist as centers for popular education, although the broad field of service which opens up for the future is indicated by the fact that the duties of the Commission include the giving of "advice and counsel to all free and other public libraries and to all communities which may propose to establish them".

The Iowa Library Commission has kept in touch with the trend of library development in the United States as represented in the American Library Association, a national organization of far-reaching importance and with a membership and a record of service in the development of the public library movement which has placed this country in the recognized position of leading in this modern educational work.

Inasmuch as the activities of a library commission are largely those of developing library work in communities where there is little knowledge of the services which a public collection of books may render, the work takes on something of a missionary phase; hence commission workers are especially interested in the problems affecting the creation of library sentiment, the beginnings of a library, the difficulties of maintaining a library on limited funds, the prime importance of careful selection of the books purchased, the necessity for enthusiastic and intelligent conduct of the library by the trustees and librarian and many similar matters, that, though small of themselves, assume large proportions in the effort to establish these centers of information and culture with meager funds in small communities. The desire of commission workers to come together to discuss these problems and to cooperate in solving them led to the organization of the League of

Library Commissions, a national organization affiliated with the American Library Association, composed of the representatives of the various state commissions and other state agencies which exist for purposes of library extension. The Secretary of the Iowa Library Commission has been active in promoting this organization, believing that it will be of great practical service to the Commission with which she is associated, and she now serves as Secretary of this national organization.

The Iowa Library Commission has been represented at the annual meetings of the American Library Association by the President of the Commission, Johnson Brigham and by the Secretary and at the meeting in 1904 at St. Louis, where the American Library Association meeting was one of unusual importance on account of the World's Fair, the Commission was also represented by Mrs. Towner, Mrs. Norris, Mrs. Howe and Capt. Johnston. A meeting of the Library Commission was held there at the time on account of the meeting of the Iowa Library Association being held there, several of the Middle West state associations holding their meetings at the same time and place.

During the period covered by this report the terms of three of the Commissioners expired; namely, Mrs. D. W. Norris, July 1, 1903, Mrs. Jessie Waite Davidson, July 1, 1904 and Mrs. H. M. Towner, July 1, 1905. Governor Cummins reappointed Mrs. Norris; Mrs. Davidson, finding her home duties required her entire attention, was succeeded by Mrs. H. J. Howe of Marshalltown and Mrs. Towner was appointed to succeed herself. One ex-officio member, Hon. R. C. Barrett, has on account of his retirement from the position of State Superintendent of Public Instruction, been succeeded by Hon. John F. Riggs. During the period meetings of the Commission have been held as follows: October 6, 1903 at Marshalltown; December 15, 1903 in Des Moines; May 5, 1904 in Des Moines; October 18, 1904 at St. Louis (in connection with the meeting of the Iowa Library Association and the A. L. A.); March 23, 1905 in Des Moines.

At the Louisiana Purchase Exposition at St. Louis, 1904, the Library Commission made an exhibit of its work of library extension in this state, showing pictures of the new library buildings, maps showing location of libraries, charts with a few statistics and one of the Traveling Libraries. The Commission was gratified to receive the award of a silver medal for this exhibit and a handsome diploma of award setting forth the same.

New Libraries Established—The following towns have voted favorably upon the question "Shall a free public library be established" as provided by the state law: Albia, Cresco, Laurens, Pella, Spirit Lake, Storm Lake, Tama and West Branch. At Maxwell and DeWitt free public libraries established in 1901 were not included in our former report. At Mt. Vernon the citizens have the free use of the Cornell College library for which Mr. Carnegie provided a \$50,000 building and inasmuch as it was necessary to provide for the support of the library by both the college and town, the library law was amended by the 30th General Assembly providing for this joint support.

A local library association is often the beginning of a movement which eventually develops into a free public library, and the Commission has encouraged the organization of these associations as a first step toward the voting of a municipal tax. Such associations have been formed at Anthon, Bedford, Clarinda, Creston, Lake City, Norwalk and Parkersburg.

Library Buildings—In the former report a list of gifts of library buildings to the state from Mr. Andrew Carnegie and from Iowa citizens showed a total amount given for the erection of these buildings in the state previous to July 1, 1903, to be \$1,268,200. Since that date the following gifts have been announced, Webster City and West Branch being gifts from citizens of those towns:

Albia	Free Public Library	\$ 10,000
Cherokee	Free Public Library	10,000
Colfax	Free Public Library	5,000
Des Moines	Drake University Library	50,000
Fairfield	Parsons College Library	15,000
Indianola	Simpson College Library	10,000
Leon	Free Public Library	6,000
Nashua	Free Public Library	5,000
Odebolt	Free Public Library	4,000
Osage	Sage Public Library	10,000
Pella	Free Public Library	10,000
Spirit Lake	Free Public Library	6,000
Storm Lake	Free Public Library	10,000
Tama	Free Public Library	7,500
Webster City	Kendall Young Library	50,000
West Branch	Enlow Public Library	2,500
West Liberty	Free Public Library	7,500
Winterset	Free Public Library	10,000

Gifts From Iowa Citizens—The most notable gift that has come to an Iowa library is the bequest from the late Kendall Young of Webster City of about \$250,000 to found and maintain the Kendall Young Library. The trustees of this fund were authorized to erect a fire proof building and the income from the remainder of the estate provides a maintenance fund. The building has been erected since our last report was issued, the funds having become available for that purpose, although the library was established in 1898 by Mrs. Young who gave the Young residence as a temporary home for the library. Though the new Kendall Young library building was dedicated after the date of this report, the announcement of the gift and the erection of the building must be recognized as probably the most unique and gratifying library event of the period in the state. The building with equipment and furnishings cost \$50,000 and the income from \$200,000 will be available for maintenance.

Another gift from an Iowa citizen is that of the tasteful little library building at West Branch presented to the town by Mrs. Huldah Enlow and costing about \$2,500. This building was given on condition that the citizens should vote a municipal tax which was promptly done and the library building was dedicated in September, 1904.

Commission Rooms—The growing work of the Library Commission and the need of sufficient shelving to properly care for the books of the Traveling Library and for the periodical exchange led the Executive Council of the state to assign rooms in the basement of the State House to the Commission in December 1903. The Commission has greatly appreciated this provision of adequate room for the increased work and already finds the shelf capacity of the rooms taxed to its utmost capacity.

It is the expectation of the Library Commission to occupy the ground floor rooms of the east wing of the new Historical building as soon as it is completed.

Publications—Probably the most important publication issued, for which the Commission has any responsibility, is the "Check List of the Publications of the State of Iowa" authorized by the Executive Council and prepared under the supervision of the secretary of the Library Commission. Heretofore no list has been available of the printed matter issued by the various state officers and departments. The Library Commission had made a beginning in the compilation of this list but lack of funds for employing the additional help necessary in its preparation made it impossible to carry out the plans. At this juncture, however, the Executive Council, through its chairman, Governor Cummins, expressed the desire that such a list be prepared and provided for the necessary help. The careful examination of the publications that were accessible, in the entire absence of data in many of the departments, made the difficulties of the work very great. It is gratifying to note the appreciation expressed by the various departments at the State House and by the libraries of the state as to the usefulness of the "Check List".

A "List of Books by Iowa Authors" is a pamphlet of 30 pages issued by the Commission in October 1904. It was compiled by Mrs. Henry J. Howe of Marshalltown, a member of the Library Commission and a member of the Auxiliary Committee from Iowa for the Louisiana Purchase Exposition. The preparation of the list grew out of the efforts of the Committee to bring together a collection of books by Iowa authors for the Iowa State building at St. Louis.

A "List of Books in the Traveling Libraries" was issued late in 1904 and contained lists of titles in 106 of the 50-volume libraries that were in use at that time, affording a means by which patrons could make selections of libraries desired. A number of new libraries have been added since that time and it will be necessary to issue a supplement to this at intervals.

A new edition of the leaflet on "Books for the Blind" has been issued on account of the postal provision for free transportation through the mail for books loaned to the blind and the adding of new titles to the collection.

The Quarterly issued by the Commission continues to be a most useful means of communication with the libraries of the state.

Library Laws—The laws which provide for the establishment and maintenance of free public libraries in Iowa have been on our statute books since 1872, but have been modified and enlarged as the needs of these institutions have demanded. There are still many points wherein these laws could be strengthened, and new conditions call for new legislation which will make it possible for Iowa to keep pace with the onward movement of library sentiment in the Middle West. The duties and powers of library trustees need to be stated more fully and explicitly, and the new responsibilities which have arisen in connection with the erection of library buildings through gift or otherwise call for some statement in the law as to this matter.

Township or county support of libraries located in towns and cities easily accessible to residents in the adjacent country has proved successful in other states. It is the hope of the Iowa Library Commission and the Iowa Library Association that such legislation may be provided for Iowa by the 31st General Assembly.

Another matter which many who are interested in Iowa library progress deem worthy of consideration by the General Assembly is the question of the maintenance fund which the law permits as provided in Section 732 of the Code and amended by the 29th General Assembly. Inasmuch as this library tax is permissive and not mandatory it would make it possible for those who are struggling with the difficult problem of maintaining a library on the extremely meager income of most of our libraries to plan for growth if this limit should be placed at three mills on the dollar instead of two mills. The present levy simply enables a small library to exist, but not to grow as it should. With an annual income in many of our libraries of from \$200 to \$1000 per year which must provide absolutely every expense of operating the library, including librarian's salary, the heating and lighting of the room or building, the purchase of books and periodicals, the binding of periodicals, the rebinding of worn books and the employment of a janitor in case the library occupies its own building, it will be seen that there is little provision for real growth so far as the collection of books is concerned and the library must depend on public spirit and philanthropy outside the tax income for more than a limited purchase of much needed books.

Regarding the Library Commission law, the rapid growth of the work in which the Library Commission has been engaged for the past five years is evident to any who have observed library conditions in the state. Library extension or field work, which requires visits and conferences in various parts of the state by a representative of the Commission has grown to such proportions that no one person can in any reasonable degree cover the entire state or meet the requests for personal visits and when in connection with this the various duties in the Commission office are considered, such as records, correspondence, etc., it is evident that these various interests call for more help if they are to be cared for in a satisfactory manner.

By reference to the part of this report devoted to the Traveling Library it will be seen that the work of that important department has more than doubled during the biennial period. With a circulation of books during this biennial period of 58,118 volumes, as compared with 28,927 volumes for the preceding period, and with 995 libraries sent out as compared with 477 for the preceding period with the additional loan of 126 books to the blind it is clear that the work has increased more than 100 per cent.

This condition of affairs has made the work of the Commission office so burdensome that it has been impossible for the very small staff of workers, which our small income provides, to adequately take care of the large amount of work which is daily coming to the Commission office. The need therefore of an additional appropriation to provide for the growing work of the Commission is absolutely necessary for the continuance of the important educational work which the state has committed to the Library Commission. The \$6,000 appropriated annually for all of the work of the Library Commission does not enable the work to be enlarged as it ought. By economy the amount has been made to accomplish a most creditable amount of work, but the increase in the doors of opportunity which have opened and which cannot be entered because of lack of funds, leads the Commission to feel that an increase in the annual income is absolutely essential to the further progress of the work.

Library Outlook in Iowa—The outlook for the library interest of Iowa is hopeful. The enthusiastic and confident spirit exhibited in the meetings of the State Library Association each year may be taken as an index to the library sentiment of the state, as this Association is composed of library trustees, librarians and others who are interested in this method of public education. The librarians are realizing more and more the responsibilities of their work and the importance of being prepared to be of service to the people by a thorough knowledge of their books and of technical methods and means of making their collection of books quickly accessible and useful. Trustees are also becoming better informed regarding the aims and methods of the modern library movement.

Free Access to the books, on the part of the public has come to be recognized as absolutely essential in bringing about the best use of a public collection of books, for it is evident to any person who uses books either for entertainment or information that it is much more satisfactory to examine the group of books on the shelves rather than to be forced to ask at long range for specific titles, of books which he has not heretofore examined. Furthermore, in connection with the use of books in the free public library, it must be borne in mind that the collection of books belong to the people of the community and the librarian and trustees are simply serving the public in making these books of value to the people who should be permitted to use them with the greatest freedom consistent with the protection and

care of public property. The burden of proof as to permitting the public to have access to their own books rests with those who refuse it.

The selection of books is a subject of the most vital importance to all libraries, but especially to the small library, with limited funds, where the value of every dollar seems doubly enhanced by the effort of the book committee to provide the best books for their library, selected from the enormous output of books each year. With a book fund annually of from \$100 to \$300 and with 8,291 new titles being issued from the press in one year, (1904) it is evident to the most casual observer that some means should be provided for selecting the best out of this large number. The League of Library Commissions has realized this need and the Wisconsin Free Library Commission has for several years prepared a recommended list of recent books which they have generously placed at the disposal of other state library commissions. It has been the hope of the Commission League that the American Library Association would take up this work, inasmuch as it was felt to be a national need rather than a state need and it is gratifying to report that the A. L. A. has recognized this and is now publishing the A. L. A. Book list for the express purpose of providing a selected list of the best new books. This list is issued monthly and the Iowa Library Commission supplies it free to each public library in the state and to a selected list of association and college libraries.

Reports of the work done by each library are required by the state law. Library statistics have been a source of perplexity to many librarians, but there is every evidence of much more care and system in the compiling of statistics and the making of reports than has heretofore existed. Libraries are adopting business methods and the librarian feels that she must be able to make a detailed report to her Board of trustees on the activities of the library in all departments. The Library Commission has used every effort to bring about this condition of affairs by providing report blanks for daily statistics, monthly reports and annual reports, to include all items required to be reported by the state law.

Endowments—The problem of the maintenance of free public libraries upon the meager incomes has been mentioned and also the splendid endowment of the Kendall Young library at Webster City. These two facts emphasize the importance of some provision for book funds, either by the creation of an increased maintenance fund or a separate book fund, either by taxation or endowment. A most worthy provision can be made for the benefit of the people of a community by the gift, from those who are blessed with wealth, of a library endowment fund, the income of which shall be used for the purchase of books. Splendid memorials to those who are gone would exist for generations and perpetuate the name of the donor in such gifts, all books purchased from the fund being plainly marked by a book plate showing the source. Higher institutions of learning such as our colleges and universities could not possibly exist if it were not for endowments, as the income

provided through the regular channels is wholly inadequate for the maintenance of these institutions; and surely these "universities of the people" which are open to all, without restrictions as to age or previous preparation, are equally worthy of such generous consideration.

TRAVELING LIBRARY.

No feature of the Library Commission's activities shows more rapid advance than the work of the Traveling Library. This method of distributing books from a state center to points in the state that for various reasons find it impossible to have a local collection of books for public use has grown to be recognized in very many states as a potent factor in developing more intelligent citizenship. During the biennial period the Traveling Library work has more than doubled and the plan is becoming more generally known throughout the entire state. The collection of books consist of two groups; viz., (a) regular 50-volume libraries of miscellaneous books for general reading, consisting of well selected books in the various classes of literature and (b) books arranged by subject which are drawn upon in varying numbers to supply requests for literature on special subjects.

An exhibit was made at the Louisiana Purchase Exposition in St. Louis in 1904 of the Traveling Library work as well as the general work of library extension carried on by the Commission. A Traveling Library was on exhibition, with printed matter relating thereto for distribution. The award of a silver medal was a gratifying recognition of the modest exhibit made there. An exhibit was also made at the Biennial meeting of the Iowa Federation of Women's Clubs in Waterloo in May, 1905, and much attention was attracted to the work which the Traveling Library is doing, especially in connection with supplying study clubs with books on their various subjects of study. This exhibit of both miscellaneous and subject libraries, maps showing location of centers, charts of statistics, picture bulletins and various suggestive features of library work attracted many interested visitors and has no doubt increased the number of requests that are pouring in for books on special subjects.

Subject Libraries are a more recent development of traveling library work than the miscellaneous libraries for general reading. When requests for books on subjects of study are received, the books are selected from the general collection arranged by subject, this collection consisting of over 7,000 volumes classified according to the Decimal classification; the number of books sent varies according to the material available and to the importance of the subject. Hence the size of the subject libraries varies. On the return of these books they are returned to the shelves ready to go out again in other groups according to demand. This feature of our work shows most gratifying results but calls for careful work.

The circulation of books in rural schools selected from the graded list of books prepared by the Board of Educational Examiners of Iowa has been continued and much appreciation has been expressed by the teachers for these books which augment the small collection provided under the library law regarding school district libraries.

A "List of Books in the Traveling Libraries" was issued in 1904 giving list of the titles contained in each of the regular 50-volume libraries, Nos. 1 to 100 inclusive, and also the six juvenile libraries of 50 volumes. This enables the library centers to select the libraries they think most desirable, each library being numbered and a series of desirable numbers being sent in. Since that list was issued several new libraries have been added and a supplementary list will be issued for distribution before a great while.

A splendid field for extending the work is in connection with the Farmer's Institutes and the county system of Y. M. C. A. work which is now being developed in Iowa, but a lack of funds to provide for sufficient help to enter into this work has made it impossible to do more than make a beginning. There is no reason why, if funds were available, there should not be a traveling library exhibited at every county farmers' institute in the state with a personal explanation by a representative of the Library Commission of the plan which the state provides for sending books to the remotest corner of the state with but a trifling cost to those who have the benefit of these books.

Books for the Blind have proven to be a feature of the traveling library work which has brought the most personal and genuine appreciation. The blind readers seem to appreciate the opportunity which the Commission has given them of having access to books in N. Y. Point which they can read themselves. This work was begun as an experiment in 1903 and in our former report the plan was given in detail. At the time the work was begun the Commission undertook to pay transportation on the books because of their earnest desire to do this much needed work, and it is gratifying to report that in June, 1904, the United States postal laws were so amended as to provide for the free transportation of these books through the United States mail. This provision had been urged by librarians for some time and is most gratifying to all who realize how much the use of these books is appreciated by blind readers. Since the last report was issued 27 books for the blind have been added to the traveling library collection.

The office records for operating a Traveling Library must be carefully kept as the distribution of books over such a wide area as a state calls for more information and in a more specific manner than for the circulation of books by a local library. Not only is the selection and arrangement of the books important but the question of geographical distribution, methods of shipping and receipt, the examination of the condition of the books, and various unique features of the work call for records that are accurate to answer the various questions that are likely to arise in connection with the location of the books and their condition. Such records and such oversight of the Traveling Library, even with its present proportions require a larger force of helpers than the Commission can employ with the funds at their disposal and if the work is to increase as it should to keep pace with the spreading desire for knowledge that is in our state an increased force is an absolute necessity.

Summary of Traveling Library Conditions—At the end of the biennial period the condition of the Traveling Library is as follows: total number of volumes in Traveling Library collection, 18,871. Of these 6,754 volumes are in fixed collections of 50 volumes each for general reading and 7,121 are in the general loan collection which includes books for subject use, the school district collection for use in the schools and books for the blind.

There are 316 centers in agreement with the Commission for the use of the Traveling Library, these centers being located in 84 counties of the state. It will thus be seen that there are still 15 counties that are not taking advantage of the opportunity for books which the state has provided.

There were 995 libraries sent out during the biennial period; 557 of these were the regular numbered libraries and 438 were general loan or subject libraries; 126 books were loaned singly to the blind. There were 18,827 readers reported for these books, the books being used 58,118 times.

The above figures do not fully show the use made of the books as it is difficult to secure full reports from the centers.

TRAVELING LIBRARY CENTERS ARRANGED BY COUNTIES.

ADAIR: Greenfield. Adair (2). Fontanelle.	BUCHANAN: Fairbank. Independence (2). Winthrop.	CERRO GORDO: Mason City. Rockwell. Thornton (2).
ADAMS: Corning.	BUTLER: Clarksville. New Hartford.	CHEROKEE: Cherokee (3). Washta.
ALLAMAKEE: Postville (2). Waukon.	CALHOUN: Rockwell City (2). Lake City (2). Lohrville. Pomeroy. Farhamville.	CHICKASAW: Nashua. New Hampton. Osceola.
AUDUBON: Audubon. Exira (2). Irwin.	CARROLL: Coon Rapids (2). Glidden (3). Manning. Ralston.	CLARKE: Ionia.
BENTON: Vinton. Norway. Van Horne. Keystone. Belle Plaine. Blairstown.	CASS: Atlantic. Griswold.	CLAY: Dickens. Peterson. Royal. Spencer.
BLACK HAWK: La Porte City (2). Winslow. Waterloo.	CEDAR: Clarence. Durant. Tipton. West Branch. Mechanicsville. Springdale (2). Centerdale.	CLAYTON: Elkader.
BOONE: Madrid. Beaver. Ogden.		CLINTON: Clinton. De Witt.
BREMER: Sumner.		CRAWFORD: Manilla (2).

DALLAS:
 Dallas Center (2).
 Linden.
 Perry.
 Redfield.
 Van Meter (2).
 Waukee.
 Adel (2).
 De Soto.

DAVIS:
 Bloomfield (2).

DECATUR:
 Weldon.
 Lamont.
 Leon.
 Garden Grove.
 Davis City.

DELAWARE:
 Manchester (4).
 Greeley.

DES MOINES:
 Burlington.
 Sperry.
 Danville.

DICKINSON:
 Arnold's Park.
 Spirit Lake.
 Milford.
 Superior.
 Orleans.

EMMET:
 Estherville.
 Ringsted.

FAYETTE:
 Oelwein (2).
 West Union.

FLOYD:
 Marble Rock.
 Nora Springs.
 Charles City.
 Rudd.

FRANKLIN:
 Sheffield.
 Latimer.
 Popejoy.

FREMONT:
 Tabor.
 Randolph.

GREENE:
 Rippey.
 Jefferson.
 Grand Junction.

GRUNDY:
 Reinbeck.
 Dike.
 Conrad.

GUTHRIE:
 Guthrie Center.
 Stuart.
 Panora.
 Casey.

HAMILTON:
 Webster City (2).
 Ellsworth.
 Williams.

HANCOCK:
 Corwith.

HARDIN:
 Eldora.
 Iowa Falls.
 Union.
 Steamboat Rock.
 Alden.

HARRISON:
 Dunlap.
 Magnolia.

HENRY:
 New London.
 Salem.

HUMBOLDT:
 Humboldt (2).
 Renwick.
 Hardy.

IDA:
 Ida Grove.
 Arthur.
 Battle Creek.

IOWA:
 Victor.
 Williamsburg (2).
 Conroy.

JASPER:
 Colfax.
 Andersonville.
 Seevers.
 Monroe.
 Prairie City.
 Newton.
 Reasnor.
 Baxter.
 Killduff.
 Mingo.
 Kellogg.
 Lynville.

JOHNSON:
 Oasis.

JONES:
 Oxford Junction.
 Scotch Grove.
 Monticello.

KEOKUK:
 What Cheer.
 Keota.

KOSSUTH:
 Burt (2).
 Germania (2).
 Algona (2).
 Irvington.
 Swea City.

LEE:
 Denmark.
 Keokuk.
 Sawyer.
 Ft. Madison.

LINN:
 Cedar Rapids.
 Central City (2).
 Marion (3).
 Rogers.
 Springville (2).
 Viola.
 Mt. Vernon.
 Liscomb.
 Coggon.

LOUISA:
 Grandview.
 Wapello.
 Morning Sun.
 Columbus Junction.

LUCAS:
 Chariton (3).
 Lucas.
 Russell (2).

LYON:
 Inwood.

MAHASKA:
 Oskaloosa.

MARION:
 Knoxville.
 Pella.

MARSHALL:
 Le Grand (2).
 Marshalltown (2).
 Rhoades.
 State Center.
 Van Cleve.
 Ferguson.

MILLS:
 Glenwood.
 Hillsdale.
 Hastings.

MITCHELL:
 St. Ansgar.
 Osage.

MONONA:
 Mapleton.
 Castana.
 Onawa.
 Blencoe.
 Turin.

MONTGOMERY: Villisca. Elliott. Red Oak.	POWESHIEK: Brooklyn. Grinnell. Malcolm. Montezuma (2).	UNION: Creston. Thayer.
MUSCATINE: Muscatine (2). West Liberty. Wilton Junction.	RINGGOLD: Mount Ayr (2). Tingley. Benton.	VAN BUREN: Cantril.
O'BRIEN: Hartley. Sanborn. Sutherland.	SAC: Early. Schaller. Nemaha. Lake View.	WAPELLO: Bidwell. Ottumwa (2). Wapello.
PALO ALTO: Emmetsburg (2). Graettinger.	SHELBY: Harlan. Shelby.	WARREN: Indianola. New Virginia. Norwalk (2). Summerset
PLYMOUTH: Merrill.	SIoux: Hawarden. Hospers. Ireton.	WEBSTER: Callendar. Gowrie. Winnebago. Forest City (2). Buffalo Center. Lake Mills.
POCAHONTAS: Gilmore City. Laurens.	STORY: Slater (2). Huxley. Ames. Maxwell.	WINNESHIEK: Decorah.
POLK: Des Moines (3). Polk City. Valley Junction. Ankeny. Sheldahl.	TAMA: Gladbrook. Tama.	WORTH: Hanlontown. Northwood.
POTTAWATTAMIE: Avoca. Macedonia.	TAYLOR: Bedford (2). Lenox.	WRIGHT: Eagle Grove. Clarion.

SUMMER LIBRARY SCHOOL.

The importance and place of summer schools in educational work has become so generally recognized that they have become accepted features of many of our educational institutions. The Iowa Summer School for Library Training has passed the experimental stage and results have more than justified the expenditure of funds to maintain it. Students who have come for the six weeks' course have returned to their libraries with higher ideals, more definite understanding of the service which a library should render to the community and with a clearer understanding of the details of the library both as regards records and the relation of the librarian to the patrons of the library. The fourth session of the Iowa Summer Library School was held as heretofore at the State University at Iowa City, June 20 to July 24, 1904, and the fifth session June 19 to July 29, 1905. As was stated in our former report, this school is intended for the librarians of the smaller libraries, for assistants in the larger libraries and for those definitely appointed to library positions in the state who wish to prepare for their work. It is in no sense offered as a substitute for the regular course given in the regular library schools. Those who can possibly do so are advised to take the course in one of the following recognized library schools, giving courses of one and two years: State Library, Albany N. Y.; University of Illinois, Urbana, Ill.; Pratt Institute, Brooklyn, N. Y.; Drexel Institute, Philadelphia and Western Reserve University, Cleveland, O.

The Director of the summer school is the Secretary of the Library Commission and a Vice-Director each year aids in supervising the work of the school. Instructors who are recognized as authorities in special subjects have given the daily lectures with practice work following, and visiting lecturers well known in the library world have brought to the school a larger view of the relations of the library to the world at large.

The instructors for the session of 1904 were Miss Esther Crawford, classification and cataloging; Miss Edith Tobitt, trade bibliography and binding; Miss Annie Carroll Moore, library work with children and Miss Tyler and Miss Brown of the Library Commission. Chief among the lecturers who are always welcome to the Summer School is Miss M. E. Ahern editor of *Public Libraries*, Chicago, who gave a most practical and entertaining talk on "Business Methods". An unaccountable omission of Miss Ahern's name in our former report leads to the further statement that Miss Ahern's lectures have been appreciated by the Director and students each year since the school has been in existence and it

was a source of great regret to the Director and the class of 1905 when Miss Ahern found it impossible to make her usual visit.

The session of 1905 showed many changes in the instructors; the cataloging instruction being given by Miss Delia C. Sanford, head cataloger of the University of Iowa library; classification by Miss Miriam E. Carey, librarian of the Burlington, Iowa, public library; reference work by Mr. Matcom G. Wyer, librarian of the State University and children's work by Miss Carolyn F. Gleason, children's librarian of the Utica, N. Y. library. It was a cause of deep regret that Miss Crawford who had been identified with the school from the beginning and to whom the success of the school is largely due, found it impossible to accept a position as instructor for the session of 1905. When the history of library progress in Iowa comes to be written, no name will deserve greater recognition than that of Miss Esther Crawford, who in the early years before she left the state for a broader field was closely identified with the organization of the state Library Association and who in recent years, after having reached a position of prominence and service as a library instructor, came back to her native state for four succeeding summers as the head instructor in the Iowa Summer School for Library Training. It was also a source of deep regret that Miss Annie Carroll Moore, who has made the course in children's work so valuable in our school, found it impossible to give the instruction in 1905. Her three summers in the school have left an impress on the state of great value.

A new feature was added to the course of 1905 by the instruction in literary criticism given by Prof. C. F. Ansley of the State University, the course being given to aid librarians in their estimate of books. Miss Fanny Duren served as revisor of practice work for both the sessions of 1904 and 1905. The members of the Library Commission have always taken a keen personal interest in the school and each year give talks to the class. In addition to the lectures by the Commissioners the class of 1905 had the rare pleasure of two lectures from Miss Electra C. Doren, Vice-Dean of the Library School of Western Reserve University, who spoke on "Libraries and schools" and "Bad Books". Miss Bessie Sargeant Smith, librarian of the Dubuque, Iowa, public library and Mr. M. H. Douglass, librarian of the Iowa College library, at Grinnell both spoke on book selection and book buying.

The plan which the Director has adopted of securing a fraternity house for the home of the instructors and students while in Iowa City has proven to be the most satisfactory arrangement possible. In 1904 the Phi Delta Theta house was secured and in 1905 the Sigma Chi house, thus providing an enjoyable center of social life for the students as well as providing for their comfort.

The instruction in library work with children which has from the first been a distinctive feature of the Iowa Library School was given for three succeeding years by Miss Annie Carroll Moore whose work in this particular field has placed her in the foremost rank of children's librarians, being at the head of that work in the Pratt insti-

tute library. It being impossible for Miss Moore to give the instruction in this subject in 1905, Miss Carolyn F. Gleason of Utica, N. Y. gave the two weeks course in a most acceptable manner.

There were 26 students enrolled for the session of 1904 and 18 for the session of 1905.

STUDENTS OF THE SUMMER LIBRARY SCHOOL, 1904.

Name.	Place.	Library.
Bahner, Pearl	Forest City	Public
Bailey, Flora B.	Perry	Public
Bailey, Myrtle	Grinnell	Public
Bryant Ursula P.	Marion	
Cook, Lillian E.	Clinton	Public
Douglas, Mary M.	Cedar Rapids	Public
Freed, Kittle B.	Ames	Public
Gabrillon, Carolyn	Ames	Iowa State College
Goodrell Edna A.	Des Moines	Library Commission
Hamilton, Theodosia	Indianola	Simpson College
Harris, Grace W.	Ogden, Utah	Public
Hauer, Mrs. Luella	West Liberty	Public
Holman, Almeda M.	Mason City	Public
*Horton, Mrs. Elizabeth M.	Algona	Public
McBride, Jessie E.	Davenport	Public
McNish, Mabel O.	Fremont, Neb.	Public
Miltimore, Cora	Stillwater, Okla.	Agri. & Mech. Coll.
Parker, Marian	Mashalltown	Public
*Parkhurst, Mary L.	Marion	Public
Ray, Mary K.	Kearny, Neb.	Public
Ritchie, Jessie E.	Oskaloosa	Public
Roberts, Jennie E.	Iowa City	State University
Swan, M. Blanche	Mt. Pleasant	Ia. Wesleyan Univ.
Thompson, Elinor	Jacksonville, Ill.	Public
Tiffy, Bessie E.	Clinton, Mo.	School
*Townsend, Emma E.	Keokuk	Public

*Second year course.

STUDENTS OF THE SUMMER LIBRARY SCHOOL, 1905.

Name	Place	Library
Abel, Clara L.	Decatur, Ill.	Public
Adams, Mary N.	Atlantic	Public
Bankson, Georgetta	Waterloo	Public
Clapp, Alice B.	Burlington	Public
Duble, Mrs. Annie L.	Spencer	Public
Fuller, Mrs. Luella L.	Marseilles, Ill.	Public
Hamilton, Pearl	Marengo	Public
Jay, M. Berdena	Shenandoah	Public
Jones, Mrs. Jennie	Manchester	Public
Lilly, Elizabeth	Burlington	Public
Morton, Frances	Falls City, Neb.	Public
Murphy, Genevive	Clinton	Public
Myers, Grace E.	Denison	Public
Noll, Amy W.	Grinnell	Public
Smith, Mrs. Calista S.	St. Joseph, Mo.	Public
Tirrell, Mrs. Eliza J. W.	Manchester	Trustee
Whitney, Mrs. Elizabeth H.	Fairfield	Parsons College
Yates, Mrs. Anna S.	Tipton	Public

 PERIODICAL EXCHANGE.

Much valuable literature is often first presented in the periodicals before being issued in book form, but the greater part of the contributions to periodicals do not appear in any other form. No more valuable material for reference work can be found than in the files of standard periodicals and hence the Library Commission encourages the libraries to complete their sets of a few of the leading magazines for reference purposes.

Poole's Index to periodical literature, Abridged edition, is an absolute necessity in every library in order that the material in the periodicals may be quickly accessible. Poole is the only key to the magazine articles which were printed in the periodicals from 1815 to the end of 1899. The supplement to this Index covers the four years from 1899 to the close of 1904. The two volumes, namely, Poole's Index Abridged, (costing \$12) and the Supplement thereto (costing \$5) should be purchased by any library that expects to build up a set of any of the standard periodicals such as Atlantic, Harpers, Century, Forum, North American Review, etc.

Current periodicals are indexed very thoroughly and promptly by means of the Readers' Guide to periodical literature, a monthly publication issued by the H. W. Wilson Co., Minneapolis, Minn., for an annual subscription of \$6 per year. This with the two volumes of Poole mentioned above gives the library a complete index to periodical literature both bound and current.

The plan of the periodical exchange is simply to serve as a medium for the exchange of periodicals, either single numbers or complete volumes. The Library Commission receives magazines from libraries or individuals and passes them on to such libraries as desire to complete their sets, the only cost being that of transportation.

During the biennial period, the Library Commission has sent out 2,092 complete volumes and 5,126 single numbers of magazines making a total of 17,678 magazines sent out in two years to libraries to aid in completing their sets. This means an immense strengthening of the resources of these libraries for reference purposes.

LIBRARY STATISTICS FOR 1904.
FREE PUBLIC LIBRARIES--SUPPORTED BY MUNICIPAL TAX.

[illegible]

Statistics for part of year only.

ASSOCIATION AND SUBSCRIPTION LIBRARIES.

Number.	Place.	Name of Library.	Librarian.	Year founded.	Volumes added, 1904	Total number volumes.	Number volu- mes loaned, 1904	City.	Country.	Borrow- ers.
1	Alden	Public.	Public.	1882	40	1,300	1,000	83	15	
2	Arnold's Park	Public	Public	1882	20	1,500	1,000	83	15	
3	Audubon	Columbian	Public	1882	20	1,500	1,000	83	15	
4	Avoca	Public	Public	1882	20	1,500	1,000	83	15	
5	Clear Lake	Public	Public	1882	20	1,500	1,000	83	15	
6	Corydon	Public	Public	1882	20	1,500	1,000	83	15	
7	Decorah	Public	Public	1882	20	1,500	1,000	83	15	
8	De Witt	Public	Public	1882	20	1,500	1,000	83	15	
9	Emmetsburg	Public	Public	1882	20	1,500	1,000	83	15	
10	Exira	Reading Room and Library.	Public	1882	20	1,500	1,000	83	15	
11	Garner	Thursday Club	Public	1882	20	1,500	1,000	83	15	
12	Glenwood	Ladies Library Association.	Public	1882	20	1,500	1,000	83	15	
13	Greene	Woman's Club.	Public	1882	20	1,500	1,000	83	15	
14	Guthrie Center.	Library Association.	Public	1882	20	1,500	1,000	83	15	
15	Harlan	Public	Public	1882	20	1,500	1,000	83	15	
16	Laporte City.	Public	Public	1882	20	1,500	1,000	83	15	
17	Lyons	W. O. T. U.	Public	1882	20	1,500	1,000	83	15	
18	Macedonia	Young Men's Association	Public	1882	20	1,500	1,000	83	15	
19	New Hampton.	Library Association	Public	1882	20	1,500	1,000	83	15	
20	Paton	Public	Public	1882	20	1,500	1,000	83	15	
21	Pella	Public	Public	1882	20	1,500	1,000	83	15	
22	Postville	Public	Public	1882	20	1,500	1,000	83	15	
23	Seymont	Public	Public	1882	20	1,500	1,000	83	15	
24	Snirt Lake	Library Association.	Public	1882	20	1,500	1,000	83	15	
25	Sutherland	Gen. N. B. Baker.	Public	1882	20	1,500	1,000	83	15	
26	Villisca	Public	Public	1882	20	1,500	1,000	83	15	
27	West Union	Public	Public	1882	20	1,500	1,000	83	15	
28	What Cheer	Thursday Club	Public	1882	20	1,500	1,000	83	15	
29			Angeline Gabrielsen	1882	20	1,500	1,000	83	15	
30			Hanna T. Nollen	1882	20	1,500	1,000	83	15	
31			May H. Douglas	1882	20	1,500	1,000	83	15	
32			Mrs. O. A. Conger	1882	20	1,500	1,000	83	15	
33			Mrs. E. M. Davidson	1882	20	1,500	1,000	83	15	
34			Roma W. Woods	1882	20	1,500	1,000	83	15	
35			Frankie J. Barker.	1882	20	1,500	1,000	83	15	
36			Estella Barnes	1882	20	1,500	1,000	83	15	
37			O. F. Menahan.	1882	20	1,500	1,000	83	15	
38				1882	20	1,500	1,000	83	15	

COLLEGE AND ACADEMY LIBRARIES.

SCHOOL LIBRARIES

Statistics of school libraries, arranged by counties, may be found in the Biennial report of the Superintendent of Public Instruction .

LIBRARIES SUPPORTED BY THE STATE.

Place.	Name of Library.	Librarian.	Volumes added, 1894	Total number of volumes.
--------	------------------	------------	------------------------	-----------------------------

MISCELLANEOUS.

EIGHTEENTH ANNUAL REPORT
OF THE
STATE DAIRY COMMISSIONER

TO THE
GOVERNOR OF THE STATE OF IOWA
FOR THE YEAR 1904.

H. R. WRIGHT,
STATE DAIRY COMMISSIONER.

PRINTED BY ORDER OF THE GENERAL ASSEMBLY.

DES MOINES:
BERNARD MURPHY, STATE PRINTER.
1904.

LETTER OF TRANSMITTAL.

To His Excellency, ALBERT B. CUMMINS, Governor of Iowa:

SIR,—In compliance with the law, I have the honor to submit herewith the Eighteenth Annual Report of the Dairy Commissioner.

Very Respectfully,

H. R. WRIGHT,
Dairy Commissioner.

DES MOINES, November 1, 1904.

EXPENSE OF OFFICE OF DAIRY COMMISSIONER FOR THE YEAR ENDING NOVEMBER 1, 1904.

Dairy commissioner's salary	\$ 1,500.00	
Dairy commissioner's expense.....	584.70	
Total		\$ 2,084.70
Deputy dairy commissioner's salary	\$ 1,066.66	
Deputy dairy commissioner's expense.....	154.57	
Total.....		\$ 1,221.23
Assistant dairy commissioner's salary (P. H. Kieffer)	\$ 1,066.66	
Assistant dairy commissioner's expense.....	939.70	
Total.....		\$ 2,006.36
Assistant dairy commissioner's salary (W. S. Smarzo).....	\$ 400.00	
Assistant dairy commissioner's expense.....	378.12	
Total.....		\$ 778.12

EXPENSE OF MILK INSPECTION IN FOURTEEN CITIES.

Milk agents' fees	\$ 1,776.00	
Milk agents' expense.....	226.25	
Milk agents' special work	24.50	
Total.....		\$ 2,026.75

OFFICE EXPENSE.

Legal expense.....	\$ 800.00	
Analyses.....	65.75	
Filing case and card index.....	59.50	
Miscellaneous.....	17.88	
Total.....		\$ 442.68
Express freight and cartage		104.37
Telegraph and Telephone.....		20.32
Total.....		\$ 8,684.48
* Less salaries.....		4,063.32
Total expenditures from appropriations.....		\$ 4,651.16
Average monthly expense.....		\$ 387.59

* Salaries are not paid from the specific appropriation. The amount appropriated for the biennial period extending from April 1, 1904, to July 1, 1906, 27 months, was \$12,825, of which has been expended in 7 months, \$2,906.47.

DAIRY COMMISSIONER'S REPORT.

The statistics of creameries and creamery butter, for renovated butter and cheese, in this report are for the year ending July 1, 1904. Statistics in regard to railway shipments of butter are for the year ending September 30, 1904. The creamery list is corrected down to November 1, 1904.

The uncertain and changing conditions of many of Iowa's creameries have made it more than usually difficult to secure anything like complete reports. It has never been possible to get an absolutely complete report from the creameries of the State, but the data given in the last seven reports of this office has been compiled in similar manner each year, so that comparisons may be made between figures for the several years with the assurance that the statistics are relatively correct. It is assumed that the averages derived from the reports of creameries that do report are the averages for all the creameries of the State.

The same accuracy can not be claimed for the statistics of the various counties. That is to say, the butter reported as manufactured in some of the counties is not produced in those counties, some of it, indeed, not in the State. The centralizing plants, and to some extent the makers of renovated butter, increase the totals for the counties in which the factory is located, when in fact, most of their product arises in other counties. Very large quantities of packing stock are shipped into the State to the renovators. It is true, also, that considerable cream is shipped into the State from Missouri, Wisconsin and Nebraska. It is also true that considerable cream is shipped out of the State to St. Joseph, Omaha, Sioux Falls, St. Paul and Minneapolis. All these things affect the statistics of creamery butter produced, or the statistics of railway butter shipments, or both.

The Thirtieth General Assembly amended the law in regard to the appointment and salaries of the assistant and deputy

dairy commissioners, increasing the salary to \$1,200 per year and increasing the number of assistant dairy commissioners from one to two. Under this law, Mr. W. S. Smarzo, of Masonville, was appointed on July 4th as Assistant Dairy Commissioner. Under the terms of the statute authorizing the employment of assistant dairy commissioners, they must be expert buttermakers. The work of Mr. Smarzo and Mr. Kieffer has been of two kinds: First, inspection of the creameries, to see that they are complying with the law in regard to cleanliness and general sanitary conditions. Second, assisting and instructing buttermakers so that their product may be of a higher grade, and so sell for a higher price. The creamery business is a co-operative business, whether called so or not, and any increase in price which the management may secure in the sale of their butter will directly benefit the farmers whose milk or cream was used in the production of that butter. Every year butter is more and more sold on its merits in the market, and if this department can do anything to increase the value of the butter by bettering its quality, the money which the State spends for the support of this department will be returned to the dairymen of the State many fold. The effect of the work of the assistant dairy commissioners among the creameries has been plainly shown in the high scores attained by a number of Iowa buttermakers at the various contests that have been held in the last year, especially when these scores are compared with the scores of the same buttermakers at previous times.

The law gives this department plenty of authority for compelling the creamery management to keep the plant in a clean and sanitary condition, but we can only advise and urge the use of better and more profitable methods. It is gratifying to be able to state that in nearly every case the buttermaker and the creamery management are very willing and anxious to adopt the suggestions of the experts of this office.

FARMERS' INSTITUTES.

Aside from the work of the agricultural colleges, the Farmers' Institute is still the chief means of bringing to the majority of the farmers that knowledge of modern and improved methods which is essential to their highest success. With this thought in mind the dairy commissioner has urged the farmers' institutes of the State to make the dairy topic one of the principal topics to be discussed at their meetings, a suggestion which

has been quite generally adopted, not only in those sections of the State where the dairy business is now of considerable importance, but also in other parts of the State in which but little butter is made. In addition to this work at farmers' institutes, the farmers of various localities and the patrons of a good many creameries have been induced to hold meetings for the discussion of dairy topics particularly. This office has furnished speakers for sixty-five meetings of farmers' institutes and similar gatherings in the last year.

CITY MILK INSPECTION.

The city milk inspection in fourteen cities costs the State of Iowa about two thousand dollars a year, as shown by the financial statement preceding. Almost all of the work consists of collecting samples from the city milk dealers as they make their rounds for the sale of milk and cream, and testing the same by the Babcock test in order to see that the milk sold is complying with the legal standard. More than one thousand samples of milk are tested each month by the Babcock test for butterfat, which readily shows whether the milk has been skimmed or watered. This same test will show with fair accuracy whether the milk has been adulterated by the addition of formaldehyde. Very little milk which comes under the notice of this department is really adulterated in any of these manners. Contrary to general belief, milk is not frequently adulterated. More objection can be raised to the milk sold in the State of Iowa from the standpoint of cleanliness than from any other point of view, but each year sees a gradual improvement in the method of handling the utensils used and the wagons and other paraphernalia or the business. There is also a growing tendency in most of the cities toward combination of the retail milk dealers for the purpose of establishing prices, so that now in most of the towns affected by this milk inspection, the price of milk is about six and one-quarter cents a quart for the winter months.

While it is true that a very small proportion of the milk offered for sale is adulterated, it is the policy of this office at present to enter complaint against any probable violator of the law, if the evidence appears sufficient so that a conviction is probable. Acting on this principle, prosecutions have been

undertaken in the cities of Ottumwa, Council Bluffs and Sioux City, the offense charged being the use of formaldehyde as preservative in the milk. In some of these cases, the defendant has plead guilty and paid his fine, and in others the cases have not yet come to trial. The detection in the use of preservative in milk is so easy that it is astonishing that any milkman will use a preservative. His self-interest, as well as his sense of honesty, ought to prevent his taking any chances.

The growth of the city milk inspection in this State is indicated by the following table showing the number of permits for milk dealers issued in they ears from 1894 to 1904. The years end in every case on the 4th of July:

1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904
359	491	566	620	574	676	714	784	821	783	780

The milk inspection carried on under the direction of this department affects about one-seventh of the population of the State, as will be seen by the following table:

Cities.	Population.	Inspectors.
Burlington.....	23,201	Dr. W. C. Hummell.
Cedar Rapids.....	25,656	Dr. J. W. Griffith.
Clinton.....	22,698	F. E. Bills.
Council Bluffs.....	25,802	H. A. Lennox.
Davenport.....	35,254	H. J. High.
Des Moines.....	62,139	G. L. Burdick.
Dubuque.....	36,297	Dr. Charles Palen.
Fort Dodge.....	12,162	D. C. Benjamin.
Keokuk.....	14,641	A. A. Bland.
Marshalltown.....	11,544	Dr. E. M. Singleton.
Muscatine.....	14,073	Dr. John Tillie.
Ottumwa.....	18,197	E. B. Hill.
Sioux City.....	33,111	J. E. Huffman.
Waterloo.....	12,580	Theo. Peek.
Total.....	347,355	.

CONDITION OF THE CREAMERY AND DAIRY INDUSTRY.

The creamery and dairy industry in Iowa has a history during the last five or six years that amounts almost to a revolution. Not only has the number of creameries in the State in these years first increased and then decreased very materially, but these changes have not been uniform throughout the State by any means. There has been a general falling off in the practice of dairying in the State but this falling off has been very much more in the western and central parts of the State than in the so-called dairy district in the northeast quarter of the State. It is evident that the causes of the decreases have not affected all sections of the State alike. Six years ago there were still a few gathered cream creameries in the State, but no cream was sent more than a few miles from the farm on which it was produced and none was shipped by rail. At present none of the former gathered cream creameries have changed their manner of business; more than half the creameries of the State receive more or less cream; sixty-one of them, and among the largest ones, ship cream by rail; there are sixty-five creameries that are exclusive hand separator creameries, more than twenty-five thousand hand separator patrons in the State and 40 per cent of the butter made in the creameries is made otherwise than from whole milk.

Iowa's creameries have always made more butter to the creamery than those of other States and the average make has been heretofore about one hundred thousand pounds per annum. On account of the central plants making from a few hundred thousand pounds to a few million pounds this average this year is more than one hundred twenty thousand, and this notwithstanding the fact that there is more than the usual proportion of creameries with a make less than the average. The tendency toward larger creameries is unmistakable even aside from the central plants. The relatively high expense in the smaller

creamery makes it certain that they can not long continue to compete with the larger and more economically operated creameries, whether of the local or central variety. This tendency is further accentuated by the impossibility of employing the most expert butter makers in the small creameries because they can not pay wages sufficiently high to get them. Hence their butter is likely to be of poorer quality and bring a less price than that of the well-managed larger creamery.

While the creamery business has not had the smoothest pathway for the last few years from a business standpoint, it is also true that the creameries have suffered from a general decrease in the practice of dairying in this State. This decrease in dairying in the State is both an effect and a cause. It is the effect produced by high prices of other products of the farm. It is the cause of increased interest on the part of a considerable number of farmers in the scientific and modern methods of dairying. Indeed, there is a great increase in the interest shown by Iowa farmers in scientific and modern methods as applied to all lines of agriculture. Because the State of Iowa is adapted by climate and soil to the production of dairy products it is certain that the State will always be one of the great dairy states, but the increase of the immediate future will not be increase of butter production or of creamery building, but will be increases of profits that will accrue to the individual who continues in the business and adopts the best methods. The efforts of those who would advance and increase the importance of the dairy interests of this State must be in the line suggested. There was a time when the farmer milked his cows because he had to make money enough to live, but that situation was only temporary; now he will milk only when he can be persuaded that there is sufficient money in the business to make it worth while to practice it, and to submit himself to the confinement and regularity that goes with the dairy business. He will model his dairy and his dairy practice after the manner of those who are getting \$40 or \$50 or \$75 per year from their cows rather than the manner of the "average" dairyman who is lucky if he gets \$25 from each cow. There are a few men in almost every county of the State, and many of them in the older dairy counties that are already using a silo, feeding a balanced ration, selecting their poorest cows for sale, and gaining increased profits by so doing. The future will multiply this kind of dairymen for the reason that they will be the ones whose profits are such as to keep them in the business.

Something similar is true in regard to the creameries. The day when a "buttermaker" can be hired for a little more than farm laborers' wages is past, because the creameries are willing to pay good wages for satisfactory service, and because they can not afford to employ any but the best when the success of a business of \$20,000 to \$100,000 depends so largely upon the skill of the buttermaker. The changing conditions in dairy and creamery practice will certainly result in bringing both businesses to a stable and satisfactory and successful and profitable basis.

POSITIONS FOR BUTTERMAKERS.

During the past year there has been an increasing number of requests to this department from buttermakers seeking employment, as well as from creameries desiring to employ buttermakers. In a great many cases the department has not been able to serve either of the parties because of lack of knowledge of the needs of the various creameries. It has been determined, therefore, that, following the appearance of this report, the dairy commissioner will be glad to have buttermakers desiring employment list their names and qualifications at this office, and to have creameries who desire to be put in communication with such buttermakers also list their names and locations. The creameries should state the amount of product they are handling, the wages they will pay, and the time it is desired that a new man shall begin work. The average wages of buttermakers in this State is about sixty dollars a month, and an average man can not be secured for less than this amount. The buttermaker desiring employment should state his experience and former places of employment, and the wages that he will demand. This office will not recommend any buttermaker except on the personal knowledge of the commissioner or his assistants, but will stand ready to put the creamery and the buttermaker in communication with one another without expense to either party.

OLEOMARGARINE.

The dairy interests of Iowa are vitally interested in the successful enforcement of all proper laws regulating the sale of oleomargarine. This State produces ten per cent of all the butter made in the United States and any injury that may be done to the dairy business by the fraudulent sale of oleomargarine as butter will be felt largely by the butter producers of this State. The legislature of this State, taking this view of the matter, early put upon the statute books of Iowa a practical and efficient law in regard to the sale of oleomargarine, known in our statute as "imitation butter" or "substitute for butter" of which the following is the vital part.

Section 2516 of the Code, after defining imitation butter and cheese provides:

No one shall manufacture, have in his possession, or offer to sell, solicit or take orders for delivery, ship, consign or forward by any common carrier, public or private, and no common carrier shall knowingly receive or transport any imitation butter or cheese, except in the manner and subject to the regulations in this chapter provided.

A close reading of this sentence from the law shows it to be a complete prohibition of the sale of oleomargarine in this State, with the saving clause added, "except in the manner and subject to the regulations in this chapter provided."

Section 2517 reads in part:

A substitute for butter and cheese, *not having a yellow color*, nor colored in imitation of butter may be manufactured sold, etc.

The dairy commissioner believed that the clause, "not having a yellow color" was intended to prevent the sale of oleomargarine having any shade of yellow even though it could not be proved that it had been "colored in imitation of butter" by the addition of some material designed especially to give the substance a yellow color such as most butter has.

In January, 1903, there were in this State about two hundred licensed dealers in so-called uncolored oleomargarine. In the five or six years immediately before that time there had never been more than one or two licensed dealers at a time, but the new national law taxing colored oleomargarine ten cents a pound had gone into effect and had reduced the retailer's license from \$48 to \$6 a year and two hundred dealers were experimenting with uncolored oleomargarine and hoping to sell it in competition with butter because every pound of it had a slight shade of yellow. It was advertised in circular letters in the following language: "Our uncolored oleomargarine has the highest shade of yellow of any brand now on the market."

In January, 1903, the grand jury of Polk County, at the instance of the dairy commissioner, indicted the Armour Packing Co. for the sale of oleomargarine "having a yellow color" and this indictment resulted in the conviction of the Armour Packing Co. An appeal was taken to the Supreme Court of the State and the interpretation of the law outlined above and the conviction under it were sustained. The attorneys for the Armour Packing Co. filed a petition for a rehearing, which petition has been overruled.

The form of the Iowa statute is different from that of any other State and this decision becomes of greater importance for the reason that the decisions of other states have never touched the point made in this case and decision, namely, that a State legislature may prohibit the sale of oleomargarine that has a yellow color, no matter whether that yellow color arises from the addition of some coloring matter or whether it arises from the natural color of the ingredients used in its manufacture. The decision is given in full below:

APPEAL FROM DISTRICT COURT, POLK COUNTY; W. H. MCHENRY, *Judge*.

Indictment for the sale of a product in imitation of butter. Judgment of conviction, and the defendant appeals—*Affirmed*.

Carr, Hewitt, Parker & Wright, for appellant.

Charles W. Mullan, Attorney-General; *Lawrence DeGraff*, Assistant Attorney-General; *Jesse A. Miller*, and *J. J. Hal-loran*, for the State.

DEEMER, C. J.—The indictment charges a sale by the defendant of a substance or compound made in the semblance of,

designed for and intended to be used in the place of, and as a substitute for, butter, which said substance or compound was not produced from pure milk and cream, although bearing the yellow color in resemblance of true dairy products. The evidence showed a sale by the defendant of a tub or firkin of oleo-margarine. The buyer knew what he was purchasing, and the tub was sealed, labeled and marked in every particular as required by statute with reference to the sales of substitutes for butter; but the product itself bore a yellow color in imitation of butter. The theory on which the case was tried is fully shown in one of the instructions given by the trial court, which we here reproduce: "You will observe that the charge in the indictment is not for coloring imitation butter, nor for selling it without it being marked as required, but it is for unlawfully selling it, it having a yellow color. The statute, as applied to this charge, prohibits the selling of imitation butter, or substitute for butter, having a yellow color. The words 'yellow color' here used, mean the natural yellow color of butter made from milk or cream from cows, without any coloring matter having been added thereto. If you find that the defendant is a corporation, and that it sold the firkin and contents introduced in evidence as 'Exhibit A' to H. R. Wright, and if you find the same is imitation butter, or substitute for butter, you will then determine whether or not it is of yellow color, as herein defined to you; and this you will determine from your own knowledge, experience or observation, whether the contents of the firkin of imitation butter or substitute for butter in evidence is of a yellow color—that is, of a natural color of butter made from milk or cream from cows. And if you so find, your verdict will be 'Guilty'; otherwise it will be 'Not guilty'."

The statutes material to our inquiry read as follows:

SEC. 2516. Every article, substitute or compound, save that produced from pure milk or cream from cows, made in the semblance of, or designed to be used for and in the place of butter, is imitation butter; . . . no one shall manufacture, have in possession, offer to sell or sell, solicit or take orders for delivery, ship, consign or forward by any common carrier, public or private, and no common carrier shall knowingly receive or transport any such imitation butter, . . . except in the manner and subject to the regulations in this chapter provided.

SEC. 2517. A substitute for butter or cheese not having a yellow color, nor colored in imitation of butter and cheese as prohibited in the next section, may be manufactured, kept in possession, offered for sale, sold, shipped, consigned or forwarded by common carrier . . . if each tub, etc.

SEC. 2518. No one shall color with any matter whatever, any substance intended as a substitute for butter or cheese, so as to cause it to resemble true dairy products, or combine any animal fat, vegetable oil or other substance, with butter or cheese or combine with any substance whatever, intended as a substitute for butter or cheese, anything of any kind or nature, for the purpose or with the effect of imparting to the compound the color of yellow butter or cheese, the product of the milk or cream from cows, or use or solicit orders for delivery, keep for sale, or sell, any such substance so colored, and designed as a substitute for butter or cheese.

The first contention made in argument is that these statutes must be construed together, and that, when so construed, it will be found that they do not apply to traffic in pure unadulterated oleomargarine, but should be held to prohibit the combining of any coloring matter or ingredient with the compound for the purpose of making it resemble butter made from pure milk or cream. Pursuant to this theory, the defendant offered to show that the compound sold by it contained nothing but ingredients which are used in making oleomargarine; that the coloration was due to the presence of natural ingredients necessarily used in the making of the product, and that nothing was placed therein for the purpose of coloring the compound and to give it the resemblance of yellow butter, and nothing added thereto except essential and necessary ingredients of the article known to commerce as "oleomargarine." Objections to this line of testimony offered by the State were sustained, and this necessarily presents the question of the true construction of these statutes. Defendant also offered to prove by an expert that the product sold by it did not bear the color of yellow butter. The State's objection to this was also sustained. A careful examination of the statute quoted, leads us to the conclusion that the legislature not only intended to prohibit the coloration of any substance intended as a substitute for butter, but also to prohibit the sale of any compound made in the semblance of, or designed to be used for and in the place of butter, which bore a yellow color in imitation of that produced from pure milk or cream of cows. But it permitted the sale of such an article of commerce or compound under certain restrictions, so long as it did not bear the color of, or was not colored in imitation of, pure butter. The sale of imitation butter bearing the yellow color of butter made from pure milk or cream is absolutely prohibited; and it is also made an offense for anyone to color any substance intended as a substitute for butter so as to cause it to resemble the true dairy product, or to solicit orders for,

keep for sale or sell any substance so colored. This is the only reasonable construction of these statutes. Any other convicts the legislature of an unnecessary use of words to define a very simple prohibition. Indeed, it is impossible to arrive at any other conclusion, without reading out of these statutes words and sentences which ordinarily would be very plain. There is little room for doubt as to the legislative intent. Moreover, we may well assume that the general assembly had in mind such a possible state of affairs as were here attempted to be shown. The books say that originally pure oleomargarine was almost white in color. Without the introduction of pure butter or coloring matter, the product would be almost white, as we understand it. It was entirely possible to introduce into the product innocuous coloring matter, which would give it the hue of butter, and then to claim, just as was here attempted to be proved, that this coloring matter or substance was a necessary ingredient of the compound, and essential to the product known to commerce as "oleomargarine," and this, in a sense, would doubtless be true. Under such a state of facts it might well be claimed that nothing was introduced into the substance for the purpose of giving it the color of butter. Were such a contention to receive judicial approval, it is manifest that many difficulties would arise in the enforcement of the law.

Looking to the history of this product as contained in standard works of well-recognized authority, it is apparent to our minds that, whatever the present purpose, the original thought was to make oleomargarine so closely resemble butter that the buyer or consumer could not tell the difference, and in the end to increase the sale of the product to the prejudice of pure butter. It may be that, if both were natural products, the legislature could not single out one at the expense of the other; but it surely had power to prevent the sale of a manufactured product, which is made to so resemble another as that the buyer or actual consumer might be deceived thereby, and induced to buy and eat a substance which he would not otherwise have bought or used. The primary object of all such legislation is to secure pure food, and to prevent fraud, deception, and deceit. The sale of oleomargarine is not wholly prohibited by these acts. The only prohibition is against its sale when made in imitation of butter. The manufacturer is not compelled to color it, as he was by the statutes construed in *Collins v. New Hampshire*, 171 U. S., 30, 18 Sup. Ct., 768, 43 L. E. D., 60. Our statutes differ

from those there construed in that they do not provide for adulteration, but simply say that the maker shall not so manufacture it as that it bears the yellow color of pure butter, or color with any matter whatsoever any substance intended as a substitute for butter so as to cause it to resemble the true dairy product. It does not provide for the introduction of any coloring matter, but prohibits it so long as that matter is introduced for the purpose of giving the compound the yellow color of true butter. Remembering that oleomargarine is a manufactured product, made of oleo oil, neutral lard, milk and cream, and pure butter, although true butter is not used in all grades, and that butter and milk and cream or other coloring matter is evidently used for the purpose of giving it the semblance of the true dairy product, it is manifest, we think, that the legislature may so control its manufacture and sale as to provide that no coloring matter shall be introduced for the purpose of securing a similitude of the true product. It was this which the legislature aimed at in enacting the law in question. This being true, there was no error in the instruction given, unless it offends against some constitutional provision; nor in the rulings on the rejection of evidence to which we have heretofore made reference.

The question propounded to the expert as to whether the substance sold bore the yellow color of true butter was not a matter of expert evidence. The law was not enacted for experts, but for the common people, who might be deceived by the appearance of the substitute, and led to purchase something they did not want. Moreover, the product itself was introduced in evidence, and was before the jury. Every one is presumed to know the color of an article which is in such general use as butter, and as to whether or not an article intended as a substitute therefor bears the yellow color of true butter. The case differs materially from *Williams v. Brooks*, 50 Conn., 285, 47 Am. Rep., 642, relied upon by the appellant. That was a copyright case, and there was no statute absolutely prohibiting the use of the article. The question there was one of actual fraud. Here there is no question of actual fraud. Liability to fraud and deceit was the fundamental thought in the mind of the legislature; but the question of deceit in the sale in controversy is not involved.

2. There is but one question left, and that the constitutionality of these statutes so construed. Defendant claims that, so

interpreted, they are unconstitutional, in that they amount to a virtual prohibition of the sale of a legitimate article of commerce and a wholesome article of food; such being an interference with the natural rights of man, and a violation of the privileges secured to him both by the State and Federal Constitutions. The propositions thus presented are not new to the courts. The Supreme Court of the United States, as well as the highest courts in other jurisdictions, have held statutes absolutely prohibiting the sale of oleomargarine constitutional. See *Powell v. Penn*, 127 U. S., 678, 8 Sup. Ct., 992, 1257, 32 L. Ed., 253; *State v. Addington*, 77 Mo., 118; *Powell v. Com.*, 7 Atl., 913, 60 Am. Rep., 350; *Com. v. Huntley*, 156 Mass., 236, 30 N. E., 1127, 15 L. R. A., 839; *Cook v. State*, 110 Ala., 40, 20 South., 360; *Palmer v. State*, 39 Ohio St., 236, 48 Am. Rep., 429; *People v. Arensberg*, 105 N. Y., 123, 11 N. E., 277, 59 Am. Rep., 483; *State of Ohio v. Capital City Co.*, 62 Ohio St., 350, 57 N. E., 62, 57 L. R. A., 181; *State v. Rockstruck* (Mo.), 38 S. W., 317; *Capital City Co. v. Ohio*, 183 U. S., 238, 22 Sup. Ct., 120, 46 L. Ed., 71. See, also, *State v. Schlenker*, 112 Iowa, 642, 84 N. W., 698, 51 L. R. A., 347; *Butler v. Chambers*, 36 Minn., 69, 30 N. W., 308, 1 Am. St. Rep., 638; *Weideman v. State* (Minn.), 56 N. W., 688. It will be observed that the statutes in question do not absolutely prohibit the sale of oleomargarine, or any other manufactured product, except it be made in the semblance of or having the yellow color of true butter; and no claim is made that oleomargarine can not be properly manufactured without introducing coloring material so that it will not bear this yellow hue. Indeed, as already suggested, we understand that the original product was nearly white. We may therefore leave out of consideration the thought, so diligently and ably argued, that the statutes in question absolutely prohibit the sale of oleomargarine. The idea which underlies the statute in question is the prevention of fraud or deceit; in other words, it is regulation, rather than prohibition. That the legislature has power to regulate the manufacture and sale of articles of food, even though the right to so manufacture and sell be called a natural right, is so well established as not to require the citation of authorities. But see *Jordan v. Dayton*, 4 Ohio, 295; *Gundling v. Chicago*, 177 U. S., 183, 20 Sup. Ct., 633, 44 L. Ed., 725; *State v. Rogers*, 95 Me., 94, 49 Atl., 564, 85 Am. St. Rep., 395. Such legislation is sustained on the theory that it is not practicable, by any ordinary inspection, for the purchaser or con-

sumer to distinguish the genuine from the artificial product; and the only effective means of protecting the public against deception is to be found in the absolute suppression of the business, or such regulation thereof as will secure practically the same results. The police power is very broad, and so elastic that no comprehensive definition has ever been attempted. Of necessity, this must be so, for it must ever respond to such social conditions "as an advancing civilization of a highly complex character requires." Anything which legitimately tends to promote public morals, health, or security is within its scope; and courts should not too closely scrutinize legislative acts, bottomed on this power. Primarily, it is for that department of government to determine what acts are or may be productive of fraud or deceit, and what inhibitions will best secure the public health and safety. But the question is not wholly legislative in character. Such acts are subject to review by the court, and the securities guaranteed by the Constitution must be preserved. Yet in all such controversies there is a broad presumption in favor of the exercise of the power, and courts should only interfere when the acts are palpably in contravention of some constitutional provision. We do not think the act in question offends against any constitutional guaranty. In an opinion written by Mr. Justice White, of the Supreme Court of the United States, which was concurred in by the entire court, an act of the State of Ohio, very similar to the one now before us, was sustained and previous cases from the same court were cited with approval. So much has been written on the subject, and the cases are so harmonious, that we need not attempt to add anything further to what has already been said. The only case which seems to support defendant's contention is *People v. Marx*, 99 N. Y., 377, 2 N. E. 29, 52 Am. Rep., 34. But in that case the statute absolutely prohibited the sale of oleomargarine. A statute somewhat like the one in question was afterward sustained by the same court in *People v. Arensburg, supra*. The commerce clause of the Federal Constitution is in no way involved in this controversy. That was eliminated by an act of Congress passed May 9, 1902, c. 748, 32 Stat., 193 (U. S. Comp. St. Supp., 1903, p. 265).

Some question is made regarding the sufficiency of the indictment, and one or two other points are made in argument which have not been separately considered. They are each and all

disposed of by what has already been said, and need not be further noticed.

It follows that there is no error in the record of which defendant may justly complain, and the judgment is affirmed.

EFFECT OF NEW OLEO LAW.

The new National law, putting a tax of ten cents a pound on oleomargarine colored in imitation of butter, and taxing a quarter of a cent a pound oleomargarine free from artificial coloration, has been in force a little over two years. For the year ending June 30, 1902, 126,316,472 pounds of oleomargarine were sold in the United States, and practically every pound of it was colored in imitation of butter and went into competition with the seven hundred or eight hundred million pounds of butter which actually went on the market that year. This was the last year under the old law taxing all oleomargarine two cents a pound.

For the year ending June 30, 1903, the first year under the new law, the output of oleomargarine was 71,804,102 pounds. During this year the manufacturers of oleomargarine were making every effort to push the sale of it and a very greatly increased number of retailers' licenses were taken out in all parts of the country, in an effort to popularize the so-called uncolored oleomargarine. At the same time every effort was made to devise means for avoiding the real intent of the new law and great quantities of oleomargarine were put out colored a light shade of yellow by the use of palm oil.

For the year ending June 30, 1904, the output of oleomargarine has been 48,071,480 pounds, a shrinkage of sixty-two per cent from the figures for 1902.

The manufacturers of oleomargarine have exercised their well known ingenuity and energy in their attacks upon the constitutionality and meaning of this statute. Four cases of extraordinary importance have reached the supreme court of the United States and been decided. The constitutionality of the law in every particular has been upheld, without reservation, by the highest court in the country. The use of palm oil in minute quantities has been declared by this same court to subject the oleomargarine so colored to the tax of ten cents a pound. That is to say, the passage of the law of 1902 was a very great victory for the dairy interests, and this victory has now been confirmed

and established by these decisions of the national supreme court.

Events of the last two years have clearly proved the assertion of the dairy people that while there is a legitimate demand for oleomargarine, most of it has been sold because it was yellow enough to look like butter, and hence, could be sold as butter. Continuously lower prices for butter have thoroughly disproved the assertion of the oleomargarine partisans that a decrease in the amount of oleomargarine on the market would result in greatly increased prices for butter. The dairy interests of the country seem to have at last secured a sufficient and efficient statute controlling the fraudulent sale of any substitute for butter.

It is idle to believe, however, that the fight has been permanently finished. It is a certainty that the manufacturers of oleomargarine will not give up their efforts to continue in the business to the detriment of the dairy business, without further efforts, and these efforts will take the direction of an attempt to repeal the law. There has already been formed an association of all manufacturers, wholesalers and retailers of oleomargarine, with considerable sums of money at their disposal, the object of which is the repeal of this law at the session of Congress which meets before this report can be in the hands of its readers, and doubtless no efforts will be spared to assure the success of their undertaking. If this law is repealed, the State of Iowa will feel its effects more than any other single State in the Union, for the reason that this State produces ten per cent of all the butter made in the United States and nearly twenty per cent of all the creamery butter. We are, therefore, vitally interested in preventing the repeal of this beneficent measure, and the one hundred thousand farmers and others in Iowa who are financially interested in the creamery and dairy business will consult their own interests by opposing in every proper and legitimate manner the repeal of this law. The only organization devoted to this particular matter is the National Dairy Union, well known to the dairymen of Iowa as the organization which is responsible for the passage of this law. The most effective work can be done through the officers of the National Dairy Union and any demands made by them upon the time and influence or money of the dairymen ought to be met. There is great danger that overconfidence will bring disaster. There is a strong possibility that the oleomargarine interests may be able this winter, or

later, to persuade Congress to repeal or modify the National oleo law.

RENOVATED BUTTER.

LIST OF RENOVATED BUTTER FACTORIES.

County.	Location.	Firm Name.	Postoffice Address.
1 Calhoun	Rockwell City	Andrew Wood Co.	Rockwell City.
2 Clayton	McGregor	The J. D. Bickel Produce Co	McGregor.
3 Dallas	Redfield	Smith Produce Co. . . .	Redfield
4 Des Moines	Burlington.	Iowa Grain & Produce Co ..	Burlington.
5 Keokuk	Sigourney	Sigourney Produce Co	Sigourney.
6 Keokuk	Keota	Keota Produce Co	Keota.
7 Lee	Keokuk	Iowa Pure Butter Co	Keokuk.
8 Polk.	Des Moines	E. M. Ellingson Co	Des Moines.
9 Polk	Des Moines	Schermerhorn-Shotwell Co.	Des Moines.
10 Polk	Des Moines	MacRae Bros	Des Moines.
11 Wayne	Humeston	James L. Humphrey, Jr. .	Humeston.
12 Woodbury	Sioux City	N. R. Hathaway	Sioux City.

The foregoing is a list of all the factories in this State now engaged in the business of making renovated butter. The list shows one new factory established, and two reported last year are not now in operation. When creamery butter is very high in price there is an easy outlet for large quantities of renovated butter; but when prices of creamery butter are low, as has been the case for the last eighteen months, the demand for renovated butter is small and profits consequently very small. It is asserted by some of the makers of renovated butter that the hand separator has decreased the amount of the stock from which the renovated butter is made, for the reason that the farmer who formerly could not get his milk to a creamery is now easily able to ship his cream to a centralizing plant. This operates to reduce the amount of farm made butter collected by the local merchant.

The output of the renovated factories varies from 14,000 pounds to nearly 3,000,000 pounds, and 65 per cent of the total is made in three factories.

Renovated Butter.	Year ending July 1, 1902—report from nine factories.	Year ending July 1, 1903—report from thirteen factories.	Year ending July 1, 1904—report from twelve factories.
Pounds of renovated butter made	4,530,328	9,123,400	8,827,528
Average per factory	503,376	707,185	735,728
Sold for consumption in Iowa	881,888	2,168,271	2,228,228
Shipped outside the State	3,548,440	7,025,129	6,599,300

The prices of renovated butter for the year ending November 1, 1904, are shown in the table below and compared with the prices of creamery butter.

Renovated Butter	Twelve months ending Novem-ber 1, 1903.	Twelve months ending Novem-ber 1, 1904.
November.....	21.0 c.	17.60c.
December.....	21.9 c.	18.87c.
January.....	21.5 c.	18.87c.
February.....	18.57c.	17.88c.
March.....	18.80c.	17.88c.
April.....	18.87c.	17.12c.
May.....	18.1 c.	16.62c.
June.....	18.40c.	15.00c.
July.....	17.75c.	15.00c.
August.....	17.0 c.	15.08c.
September.....	17.0 c.	15.85c.
October.....	17.0 c.	16.58c.
Average price per pound ..	17.17c.	16.16c.

SHOWING AVERAGE MONTHLY PRICE OF FANCY WESTERN CREAMERY BUTTER IN NEW YORK MARKET.

Month	Twelve months ending Nov. 1, 1896.	Twelve months ending Nov. 1, 1897.	Twelve months ending Nov. 1, 1898.	Twelve months ending Nov. 1, 1899.	Twelve months ending Nov. 1, 1900.	Twelve months ending Nov. 1, 1901.	Twelve months ending Nov. 1, 1902.	Twelve months ending Nov. 1, 1903.	Twelve months ending Nov. 1, 1904.
November.....	\$.2330	\$.2112	\$.2325	\$.2337	\$.2600			\$.2650	\$.28.17
December.....	.2500	.2250	.2260	.2160	.2720			.2680	.24.28
January.....	.2266	.1940	.2040	.1975	.2650			.2762	.22.70
February.....	.2000	.2150	.2042	.2100	.2500			.2600	.25.17
March.....	.2125	.1900	.1937	.2075	.2550			.2690	.24.62
April.....	.1650	.1880	.1980	.1962	.1940			.2725	.22.84
May.....	.1572	.1590	.1580	.1760	.2012			.2800	.21.18
June.....	.1530	.1500	.1637	.1781	.1950			.2160	.18.08
July.....	.1505	.1500	.1637	.1835	.1960			.2012	.17.67
August.....	.1571	.1675	.1860	.2000	.2100			.1940	.17.68
September.....	.1600	.1940	.2025	.2262	.2150			.2075	.19.47
October.....	.1850	.2290	.2235	.2400	.2160			.2100	.20.96
Average value per lb. for each year	\$.1882	\$.1825	\$.1971	\$.2005	\$.2278			\$.2417	\$.21.40

The increase in size of our creameries is shown by the following figures, taken from the foregoing tables:

	1900.	1901.	1902.	1903.	1904.
Average pounds of butter per creamery..	104,918	105,491	104,152	97,770	112,084
Total pounds of butter for all creameries.	84,965,062	82,744,941	77,835,696	64,575,970	68,017,476

The figures in the above comparison for the year 1904 are exclusive of 3 centralizing plants, which make 5,400,000 pounds of butter, including them, the average amount of butter made in each creamery is 120,536 pounds.

The estimated gross amount of butter, 68,017,476 pounds, includes all the creamery butter made in the state in plants of all kinds.

	1900.	1901.	1902.	1903.	1904.
Number of patrons of creameries	91,417	89,876	81,532	72,710	75,981
Average number of patrons per creamery	113	114	109	110	120
Total number of cows.....	631,829	627,984	579,700	569,782	587,822
Average number of cows per creamery	781	801	775	802	908
Average number of cows per patron	7	7	7	8	8

	1902.	1903.	1904.
Average pounds of butter produced by each patron	955	899	927

A large number of creameries have this year reported a very low average production per cow. This is especially noticeable in the returns from the centralizing plants and those creameries operating on the hand separator plan.

The nine largest centralizing plants in the State make 5,392,-557 pounds of butter; they have 6,847 patrons. Four of them make 3,422,247 pounds of butter, and report 42,680 cows. These figures will show an average make of butter for each patron of only 788 pounds, and for each cow of 80 pounds, both of which averages are away below the averages of the State, including plants of all kinds.

The following table shows the number of pounds of butter made by all the hand separator creameries reported, except the nine just mentioned above. It shows, also, the number of patrons and the number of cows:

Butter made.	Patrons.	Cows.	Butter made.	Patrons.	Cows.
70,000	107	800	110,448	85	.....
807,000	800	8000	84,878	175	800
248,742	220	1500	100,000	200	1,500
85,703	120	1000	51,780	60	600
82,404	120	1200	200,000	500	.....
148,858	200	.....	248,000	150	.....
89,600	90	600	120,000	70	900
61,981	58	550	72,511	86	800
587,784	600	.....	45,289	80	.....
48,648	50	270	126,800	250	.....
60,000	80	400	265,048	252	1,772
94,180	110	850	106,760	150	1,000
149,752	278	.....	75,000	110	1,200
618,792	750	.....	284,698	312	2,400
120,000	175	.....	197,120	180	1,980
74,634	60	.....	116,954	160	1,250
89,042	68	548	110,766	120	.....
150,693	150	800	124,000	200	1,500
219,696	338	.....		
Total			5,640,404	7,028	28,540

These 37 creameries, all hand separator plants, made an average of 152,443 pounds of butter, or an average to the patron of 802 pounds, which is 125 pounds less than the average for all the patrons of the State, including the above creameries.

The 26,540 cows here reported are credited with having produced 2,935,130 pounds of butter, an average of 110 pounds per cow.

Following are some comparisons showing the amount of butter per patron and per cow made in various counties. The figures given are the sum totals and averages for all the creameries in each county which report the three items of butter made, patrons and cows. Allamakee county makes about all her product from gathered cream. The others make their product from whole milk.

County.	Pounds of butter made.	Number of patrons.	Number of cows.	Average pounds of butter per patron.	Average pounds of butter per cow.
Allamakee	1,225,611	1,230	9,450	957	129
Bremer	1,838,099	747	9,878	1,781	142
Delaware	2,373,162	1,832	14,938	1,261	158
Dubuque	1,851,621	984	8,550	1,878	158
Pala Alto	1,809,551	1,019	8,508	1,237	158

Average 150.

The five counties given above will be recognized as some of the best dairy counties in the state. Similar figures for other counties will be less in the average butter produced by each patron and the average per cow, so that the total average for the State is less than the figures given above.

A study of all the foregoing tables seems to indicate conclusively that the patron who has a hand separator produces less butter on the average than other creamery patrons. Also, that the patron of the hand separator and the centralizing plant produce less butter per cow than other creamery patrons. These figures, of course, are for the amount that he sends to the creamery. He may make a lot of butter at home, which would bring up his average make, but the general result seems to be that the make of creamery butter is very greatly reduced.

It is possible that the changeable character of the patronage of the plants that receive their cream by rail may have caused

more than usual inaccuracy in the figures given above, and that the averages are not quite so low as given above.

The probably reason for this state of affairs is that the man sending cream from the hand separator will discontinue this phase of his dairy operations when the amount of milk to be separated becomes small. Under the same circumstances, a farmer would not discontinue sending milk to the creamery if the milk hauler passes his door every day.

Another table shows the number of hand separators in the State, so far as reported to be 25,887 and the amount of butter made from cream of all kinds, is about 25,000,000 pounds. It will be a very liberal assumption if we credit the 25,000,000 pounds of butter to the 25,000 separators, an average of 1,000 pounds each. This 1,000 pounds of butter represents not more than 25,000 pounds of milk, and assuming that the farmer operates his separator only eight months in the year, or 250 days, he will use it 500 times, and the average amount of milk will be only 50 pounds for each separation. It is easy to suppose that when the milk runs down to ten or fifteen pounds the operator of the separator gets discouraged and doesn't send cream from his separator to the creamery.

However, the question of the use of hand separator is one that the individual determines from the standpoint of his own self interest, and the fact that it reduces the make of creamery butter is not a vital point to him. The enormous increase in hand separators in the State for the last few years indicates that they are very popular, and this popularity could not continue if the farmer was not convinced that he secured an advantage from the use of it.

PRICES PAID FOR BUTTER FAT.

The following table shows the prices paid for butter fat for the several months of the year 1904 by plants all of whose product is made from cream received by rail. Most of these creameries advertise to pay one cent under New York butter prices for butter fat delivered at the creamery, but some of them also agree to meet all competition, so that in some cases the price actually paid is higher than one cent under New York. The cost of shipping cream is, according to the reports, from the managers of these creameries, one cent per pound of butter

fat, the cost varying, of course, with the distance. The railroad distance tariff on milk or cream in cans is as follows:

	5 Gallons.	8 Gallons.	10 Gallons.
Minimum.....	12 cents.	15 cents.	19 cents.
50 miles.....	15 cents.	18 cents.	22 cents.
100 miles.....	24 cents.	27 cents.	31 cents.
150 miles.....	34 cents.	37 cents.	41 cents.

The plants whose prices are given below cover practically the whole State.

CENTRALIZING PLANTS SHIPPING CREAM BY RAIL.

Month.	N. Y. Price.	Cents.	Cents.	Cents.	Cents.	Cents.
January.....	22.70	22.50	22.10	21.75	22.00	20.50
February.....	25.17	25.00	23.40	24.50	24.00	21.40
March.....	24.52	23.50	24.00	23.55	23.00	21.50
April.....	22.84	22.00	22.00	22.00	22.00	22.00
May.....	20.12	19.00	17.25	19.12	18.20	19.00
June.....	18.08	17.00	17.00	17.10	17.20	17.00
July.....	17.07	16.00	16.50	16.75	17.00	16.00
August.....	17.98	16.50	17.00	16.90	17.20	16.25
September.....	19.47	18.00	18.85	18.50	18.20	18.50
October.....	20.95	.....	...	19.40	.....	....

Month.	Cents.	Cents.	Cents.	Cents.	Cents.
January.....	19.50	22.75	21.66	22.00	20.75
February.....	22.00	26.00	24.25	24.25	23.26
March.....	21.00	23.75	23.44	23.45	22.51
April.....	19.62	22.50	21.97	21.80	21.10
May.....	16.75	19.00	20.50	19.01	18.03
June.....	15.00	18.00	17.12	17.00	16.18
July.....	15.00	17.00	16.75	16.65	15.67
August.....	16.50	17.50	16.75	16.85	18.00
September.....	17.00	18.50	18.12	18.25	17.50
October.....	.....	19.50	19.12	.....	.....

In the following table are found the prices paid by creameries whose product is almost exclusively from milk. The number at the top of each column represents the number of pounds of butter made by these creameries, and the low prices paid in the winter time are accounted by the fact that their run was very small and expense correspondingly high.

WHOLE MILK PLANTS.

Month.	N. Y. Price.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
January.....	22.70	109,114	266,295	158,998	41,074	208,448	105,121
February.....	25.17	22.00	23.00	22.00	19.00	23.00	20.00
March.....	24.52	20.00	21.50	25.00	15.00	25.00	22.00
April.....	22.84	20.00	23.00	24.00	15.00	23.00	20.00
May.....	20.12	17.00	22.00	23.00	16.00	22.00	20.00
June.....	18.08	16.00	19.00	14.00	14.00	18.50	16.00
July.....	17.07	17.00	17.75	17.00	15.00	18.00	17.00
August.....	17.98	17.00	18.75	16.00	15.00	18.00	17.50
September.....	19.47	18.00	19.00	16.00	16.00	19.50	18.00
October.....	20.9	20.00	21.25	19.00	17.00	21.50	19.00
		21.00	.....	21.00	18.00	.....	.....

Month.	Cents.	Cents.	Month.	Cents.	Cents.
January	22,850	170,000	June	22,850	170,000
February	21.00	23.68	July	16.00	17.50
March	22.00	26.66	August	16.00	18.25
April	21.00	23.00	September	18.00	19.90
May	20.00	21.66	October		22.00
	18.00	18.76			

The following are prices paid by creameries whose product is made from both milk and cream.

COMBINED PLANTS.

Month.	N. Y. Price.	Cents	Cents.	Cents.	Cents.	Cents.	Cents.
		252,064	57,814	44,563	104,000	118,420	67,984
January	22.70	21.00	.....	22.50	22.00	21.00	22.00
February	25.17	26.00	23.00	24.50	20.00	24.00	21.00
March	24.52	23.00	21.00	24.60	23.00	22.50	21.00
April	22.84	22.00	20.00	22.70	20.00	21.00	2.00
May	20.12	20.00	19.00	19.70	20.00	17.00	19.00
June	18.08	19.00	18.00	18.80	18.00	16.50	18.00
July	17.67	19.00	18.00	17.70	18.00	15.50	17.00
August	17.98	19.00	18.00	19.60	17.00	16.50	16.00
September	19.47	21.00	20.00	20.60	17.00	17.50	16.00
October	20.95	22.00	.....	23.50	19.00	.....	18.00

In the following table are found prices paid by creameries whose product is exclusively from cream. These prices are for the inch of cream or practically for the pound of butter made.

OLD STYLE GATHERED CREAM, PAY BY THE INCH OF CREAM.

Month.	N. Y. Price.	Cents.	Cents.
		212,000	208,892
January	22.70	20.00	18.53
February	25.17	2.00	20.67
March	24.52	20.00	18.64
April	22.84	19.00	17.66
May	20.12	16.00	14.48
June	18.08	15.00	14.32
July	17.67	15.00	14.53
August	17.98	15.00	15.67
September	19.47	16.00	16.46
October	20.95	17.00	18.00

In comparing the foregoing prices, it should be remembered that the shipper pays practically one cent a pound on the butterfat as freight, and it will cost him as much time and trouble and expense to take his cream to the depot as it will to take it to the creamery in the same town. Also, that it costs from 2 cents to 2½ cents a pound on butterfat to deliver whole milk at the creamery.

WHY THE CREAMERIES CLOSE.

The last three years has seen the finish of a very large number of creameries in the State of Iowa. It is not difficult to tell, in a general way, why these have closed, but following will be found returns from twenty-five creameries giving some information about them and the reasons why they closed, as suggested by their former managers or operators, and this short table will repay considerable study.

Of the first nine on the list, two were burned and not rebuilt, and the reasons given for the closing of the others, seem to indicate that their managers found that they were very expensive to operate. These creameries were creameries with small patronage. In the best of creameries, about a thousand pounds of butter per patron is all that is made, so that the number of patrons here given as the highest that these creameries ever had may represent also the number of thousands of pounds of butter per year they were making at their very best. As has been pointed out in these reports before, the expense per pound for making butter increases very rapidly with the decrease of the number of pounds made. When creameries have no competition, the exact expense per pound for making will not be a very large factor in their success or failure, but when they must compete with creameries having a larger make, or with centralizing plants, to which the cream may be shipped, the expense per pound of making is one of two vital circumstances. The other, of course, is the quality of the butter and the price for which it sells. Those who urge the building of new creameries are fond of saying that a creamery can be successfully operated with 250 or 300 cows. The experience in Iowa the last two or three years, and indeed before the cream shipping system came into vogue, has been that a creamery starting with less than 500 cows is almost certain to fail. Experience also has shown that if the cows are not in the community when the creamery begins, they will not very largely increase in number for a good many years

after the creamery has shown itself to be a success. It is not at all astonishing that the first nine creameries in the following list have gone out of business.

Numbers 10 and 11 were evidently crowded out by the building of new creameries in their territory, or by superior management and energy in the creameries with which they competed locally.

Numbers 12 and 13 were evidently creameries that at one time were doing considerable business, but suffered, as many creameries have suffered, from lack of business ability on the part of the manager. One of the most astonishing things in creamery history in Iowa is that creamery management so many times has fallen into the hands of people who have never given any evidence of business ability of any kind. The fact is that the successful management of a creamery requires business ability of the highest order.

Numbers 14 to 17 were evidently average sized creameries, making, perhaps, a hundred thousand pounds of butter a year, at their best. Three of them closed because of the increased practice of shipping cream, and the other one reopened, as the manager states, because the farmers did not find it profitable to ship their cream. One is led to suspect that the statement that the centralizers are responsible for the closing of the creameries, has been overworked. In another part of this report are found prices paid for butterfat by various kinds of creameries in this State, from which it may be argued that the local creamery of sufficient size, under good management, can and does easily compete with the creamery that receives its supply of cream by rail.

The last eight creameries reported in the following table seem to indicate a general falling off in the interest of the dairy business, rather than a decrease in the number of cows or in a disastrous competition of any kind:

Number.	Number of years creamery was operated.	Greatest number of patrons at any one time.	Has there been a decrease in the practice of dairying?	Is there enough milk and cream in your territory to operate a creamery?	Is the milk sent to competing local creameries?	Is it shipped to a centralizing plant?	General Reasons for Closing.
2	Yes..	No..	No..	No..	No..	No..	Farmers will not milk.
3	No..	Yes..	No..	Yes..	Yes..	Yes..	Milk hauling too expensive.
4	No..	Yes..	No..	Yes..	Yes..	Yes..	Milk hauling too expensive.
5	No..	Yes..	No..	Yes..	Yes..	Yes..	Can not compete with centralizers.
6	No..	Yes..	No..	No..	No..	No..	Creamery built by creamery sharks.
7	No..	Yes..	No..	Yes..	Yes..	Yes..	Creamery built by creamery sharks.
8	Yes..	Yes..	No..	Yes..	Yes..	Yes..	Poor management.
9	Yes..	Yes..	No..	Yes..	Yes..	Yes..	Creamery burned and too little patronage to pay to rebuild.
10	Yes..	Yes..	Yes..	Yes..	Yes..	No..	Local competition too great.
11	Yes..	Yes..	Yes..	Yes..	Yes..	Yes..	Fls creamerie surrounding. Can not compete.
12	Yes..	Yes..	No..	Yes..	Yes..	Yes..	Poor management by directors.
13	Yes..	Yes..	Yes..	Yes..	No..	No..	Poor management by owner.
14	No..	Yes..	No..	No..	No..	No..	Reopened. Not profitable to patronize centralizers.
15	Yes..	Yes..	No..	Yes..	Yes..	Yes..	Can not compete with centralizers.
16	Yes..	Yes..	Yes..	Yes..	Yes..	Yes..	Can not compete with centralizers.
17	No..	Yes..	No..	No..	Yes..	Yes..	Hand separators and cream shipping.
18	Yes..	No..	Yes..	Yes..	No..	No..	
19	Yes..	No..	Yes..	Yes..	No..	Yes..	
20	Yes..	Yes..	No..	No..	No..	No..	General decrease in milk production. Cattle high in price. Times too prosperous for milking cows.
21	Yes..	Yes..	No..	Yes..	Yes..	Yes..	
22	No..	Yes..	No..	No..	No..	Yes..	

COST OF MAKING POUND OF BUTTER.

The reports of this office show that the cost of making butter in the various creameries of the State are as follows:

Creamery making 40,000 lbs.	cost of making is 4. cents.
Creamery making 50,000 lbs.	cost of making is 3.4 cents.
Creamery making 60,000 lbs.	cost of making is 3 cents.
Creamery making 70,000 lbs.	cost of making is 2.88 cents.
Creamery making 80,000 lbs.	cost of making is 2.66 cents.
Creamery making 90,000 to 125,000	cost of making is 2. cents.
Creamery making 130,000 lbs.	cost of making is 1.85 cents.
Creamery making 175,000 lbs.	cost of making is 1.65 cents.
Creamery making 200,000 and above	cost of making is 1.44 cents.

It is evident from these figures that the smaller creamery can not long exist where there is competition of any kind. The possibility of making butter for a cent and a half a pound makes

the continued existence of a creamery whose expense is three or four cents a pound, impossible. The tendency is, and must be, under present conditions, toward increase in size of our creameries and we must look; in the future, for larger creameries and, naturally, not so many of them.

CREAM TEST BOTTLES.

The centrifugal test machines now on the market are very highly improved and do satisfactory work if run at a proper speed and are probably as good machines as are necessary. Originally the test machines were made on a ten-inch radius but since the standard bottle for either milk or cream is but six and one-half inches in length at the most, the modern machines are made on a radius of eight or eight and one-half inches. Any increase in the length of the test bottle used requires the use of a tester made on a ten-inch radius, and a depth about four inches more than the ordinary machines so that the bottles may stand upright. The twenty-inch machine for the use of the nine-inch bottles are found in practice to be quite expensive, both in first cost and in the cost of the larger and more fragile long bottles. They are the most suitable, however, for cream testing, for with them one can use a nine-inch bottle reading to 55 per cent and get fairly close reading, or the operator can use a nine-inch 30 per cent bottle with a half weight of cream and double the reading, and get a reading almost as close as that of the ordinary milk test bottle. But most creameries still have machines of smaller size and use the standard length bottle.

This bottle is not more than six and one-half inches long. The bottom of it to the zero mark is three inches long. The scale, whether it is a milk bottle, a 30, 40, or 50 per cent cream bottle, must be put in the other three or three and a quarter inches and is rarely more than two and three-quarters inches long. One of the curiosities of glassware in the possession of this department is a thirty per cent cream test bottle on which the scale reads to half per cents, and so has sixty marks on it, is but one and five-eighths inches long. This makes the lines on the scale a little more than one-fortieth of an inch apart. While this bottle may be, as advertised, accurately calibrated it is evident that accurate reading can not be done on a scale of this kind.

The ordinary milk bottle has a scale from two to two and three-quarters inches long and this gives about as small a diameter to the neck as can be used in a milk bottle. It does not seem to have occurred to the manufacturers of glassware that they could make a Babcock bottle that did not have a three inch bottom and a two and three-quarter inch scale, and so nine-tenths of our creameries are reading cream tests in 30 per cent or 50 per cent straight-necked bottles having the scale of this length, a length so short that an error in reading equal to the thickness of an ordinary blotter means an error of one-twentieth or one-twenty-fifth in the number of dollars they shall pay the patron. Testing with such apparatus is at best only a means of guessing at the real butterfat value of the cream.

The cuts herewith given illustrate some modifications of the cream test bottles designed in the office of this department. Bottles represented in Fig. A and Fig. B have about the standard length bottoms but the whole length of the neck, three and one-half inches, is utilized for the scale, making closer readings possible. Bulb neck bottles have never been popular for the reason that they are not easily read with the dividers for the reason that the bulb must always be kept inside the points of the dividers and the reading must sometimes be made from some other point than the zero mark. A thirty or forty per cent bulb would give a still smaller neck and closer reading for the rest of the scale but would not be practicable because one does not know before he begins whether he will have fat enough in the bottle to more than fill the bulb or not. Using a bottle having a 20 per cent bulb, cream that tests 20 per cent or less may be read in the part of the scale below the bulb, and cream that tests more than 20 per cent may be read by floating the fat higher so that it fills the bulb. This requires some care in filling the bottles but is entirely practicable.

A large number of operators of cream tests are using a 30 per cent bottle with a half weight of cream and doubling the reading. There are two modifications of the cream test bottle that may be used when this method is followed. The bottom of the bottle may be reduced in length, thus making the neck and scale so much the longer; and the scale may be doubled on the bottle so that the operator may not be required to perform the mental operation of multiplying his reading.

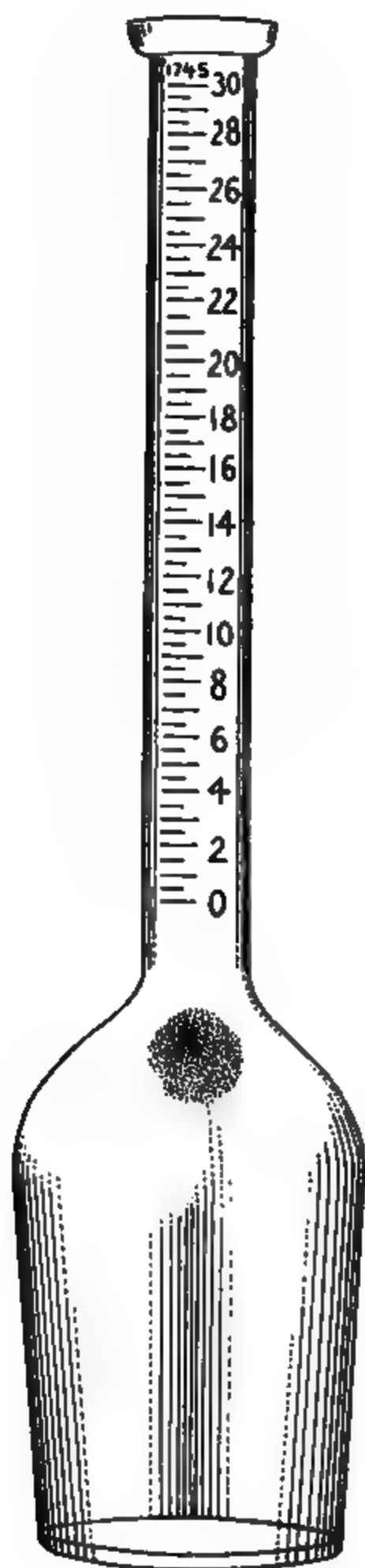


FIG. A.



FIG. B.

The bottom of a standard bottle contains about fifty cubic centimeters, or about three pipettes full. Having in it the necessary eighteen grams of cream and sufficient acid, it is about two-thirds full. But if one is to use nine grams of cream and a half charge of acid the capacity may be reduced to thirty or thirty-five cubic centimeters and still give room to thoroughly mix the cream and acid. This will make the bottom a little more than two inches and the scale about four inches. If then the neck has a capacity sufficient for a 25 per cent bottle instead of something larger, and if the scale be written to 50 per cent the divisions will be one hundred in four inches or one twenty-fifth of an inch apart, which is practically what the divisions are on a short scale milk bottle. This scale will, therefore, read to one-half per cent as easily as the short scale milk bottles will to two-tenths. Closer readings are possible but not practicable. If the ordinary scale is put on the bottle and the reading doubled then the results will always be in whole per cents. But if the scale is doubled on the bottle the reading may be to half per cents and, hence, a more accurate result obtained. Such a bottle as here illustrated will have a narrow neck and errors arising from the meniscus will be small. Fig. C fully illustrates these modifications.

Still closer readings of butterfat may be had if the errors arising from the meniscus can be eliminated. In reading *milk* test we have been taught to read all the butterfat there is in sight, regardless of the fact that there is a curve at the top of the fat column, and reading to the top of the column gives too great a reading. This apparent error is more apparent than real for the reason that a small quantity of fat always remains in the liquid and compensates for the high reading. Experiments have shown that this apparent error amounts to about .2 on the milk bottlescale, but amounts to as much as one and a half per cent on a straight-necked 50 per cent bottle, and of course less on bottles of other sizes. These errors, if all the meniscus is read, are present in the bottles illustrated in Figs. A, B, and C. If the reading is taken immediately after the machine stops, before the fat has time to cool, the bottom of the fat column is a straight line, and if the top of the bottle be made smaller in diameter as shown in Fig. D, so that the meniscus shall be no more than in a milk bottle, the reading may be made as accurately as in a milk bottle. In using such a bottle, the fat column should be floated up as near to the zero



FIG. C.

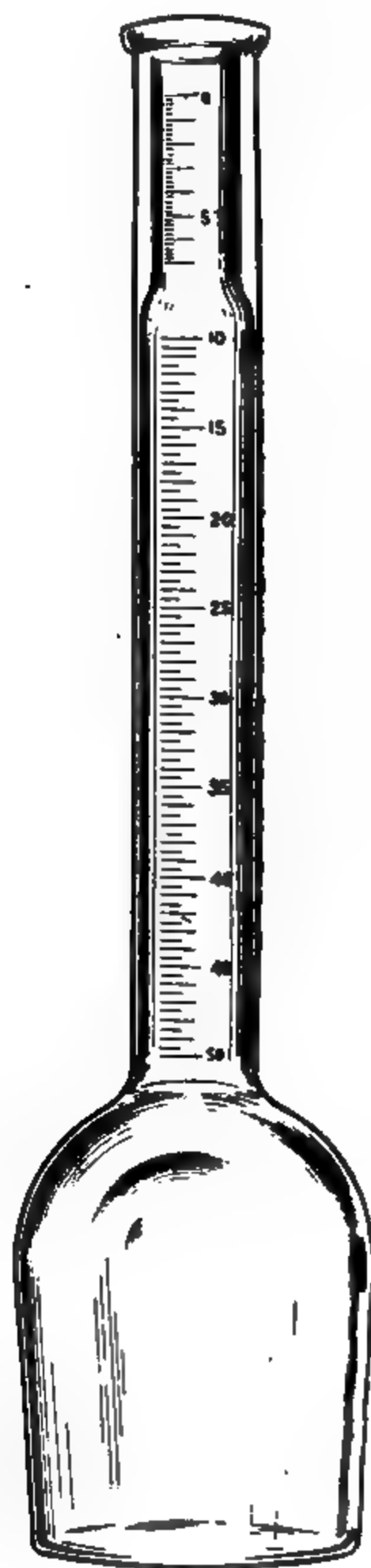


FIG. D.

mark as practicable. The reading at the top and that at the bottom must be taken and the one subtracted from the other to get the correct reading. The scale on the bottle, shown in the illustration, is doubled so that with nine grams of cream the reading may be taken direct, and may be as close as two-tenths of one per cent, the same as is shown on the scale of a milk bottle. By this means errors arising from the meniscus are entirely avoided. With such a bottle the dividers could not be used at all, and a mental calculation would be necessary with every test; otherwise the bottle will be entirely practicable.

In handling cream it is well to reverse the pipette, because the tapering point of the ordinary pipette will not admit the more solid portions of the cream and errors are thus made when the cream has not been made as smooth as it should have been. Or a pipette made on the model of Fig. E, and made to hold a little less than nine grams of cream, would be useful and easily handled.

TESTING BUTTER TO SHOW THE OVER RUN.

Butter may be tested with the Babcock test exactly as cream is tested and without extra apparatus if only approximate results are to be shown. But with ordinary test bottles reading to 50 per cent, the errors are usually considerable, and it is difficult to handle melted butter with the pipette and still get a fair sample for the reason that the water in melted butter separates very quickly. If after the butter is tested and the reading is made the overrun is figured still more serious errors may be made. An error of one or one and a half per cent may easily be made in the reading on account of the meniscus, and an error of one per cent in the reading will make a difference of nearly three per cent on the overrun when that is figured out. That is, with the ordinary bottle, with its possible and probable error of one or more per cent in reading, the operator would know what his overrun was only within the limit of three per cent, which is too great an error when the overrun probably varies only from 12 to 20 per cent at the most.

In order to eliminate from the operation of butter testing as much as possible the probable errors due to handling melted butter with a pipette, and the varying errors arising from the uncertain reading of a deep meniscus the following modification of the apparatus is suggested. Fig. F is a long-stemmed cup, some-



FIG. E.



FIG. F.



FIG. G.

thing like a pipette cut in two in the middle, of such a size as to hold about nine grams of butter. Having been balanced together with the bottle shown in Fig. G, upon a cream scale, it is then filled with butter by using it exactly in the manner of a butter trier. The stem of the cup is then placed in the neck of the bottle on the scale and by adding or subtracting a very little butter the exact weight of nine grams is easily secured. The whole apparatus is then placed in a tester. The heat of the steam soon melts the butter and it runs into the bottle. A small amount of acid should then be added and the test is completed as any cream test. The bottle shown in figure G, is so graduated that the per cent of butterfat may be read at once and read to two-tenths of one per cent. The neck of the bottle is the same size as that of a milk test bottle and the error in the meniscus will not be more than two-tenths of one per cent, which makes a possible error of about three-tenths of one per cent in the overrun when that is figured out. This form of apparatus will be found to be sufficiently accurate for work in the creamery and its use is so simple that it can be used every day in checking up the amount of overrun in the churning. Reports to this office show that the overrun varies as much as ten per cent. from one month to another in some of our creameries. The difference in prices paid, which results from this variation in the overrun will certainly create dissatisfaction among the patrons. If the overrun can be made about the same every day the prices will be more uniform and satisfactory. But the buttermaker can do little to make it uniform if he has to wait till the end of the month for the secretary to figure out the amount of butterfat before he can tell what his overrun is. If some apparatus for the determination of the overrun were in use in every creamery the results would be valuable.

THE PIPETTE IN CREAM TESTING.

CREAM SCALES.

Before the advent of the hand separator, the Babcock test for milk was in use in ninety per cent of the creameries of the state. The Babcock test for cream in the days when cream meant the hand skimmed product, was never popular and never in any large degree supplanted the old oil test churn, notwith-

standing the fact that with proper handling it is much simpler and much more accurate. The testing of cream by this system, if practiced at all, was only for the purpose of determining the richness of the cream approximately as it came from the factory separator. The use of the hand separator and the revolution which it has effected in the manner of the marketing the product of the cow, has very greatly increased the use of the Babcock test for ascertaining the butterfat value of cream.

It was long ago pointed out that testing milk and testing cream by the Babcock method were two vastly different operations. The cream, being a much more valuable product, would seem to require more careful and accurate testing than the milk, but it has been almost the universal practice to use methods in cream testing apparently without thinking or caring whether they were likely to produce accurate results.

The use of the pipette for measuring the cream in cream testing, and the use of short scale, wide-necked 50 per cent. bottles has resulted in very great inaccuracies. The Babcock test supposes that eighteen grams of milk or cream shall be put into the bottle. The 17.6 c.c. pipette will deliver eighteen grams of milk with as great accuracy as can be secured if the milk is weighed into the bottle for testing. The 17.6 c.c. pipette will deliver *less* than eighteen grams of cream, under the best of circumstances. If the cream is very rich, it will be so thick that a very large portion of it will stick to the inside of the pipette. If it is slightly sour, it will have in it gas bubbles, and if it be stirred or poured to make it smooth and uniform, it will carry air bubbles; or, if the cream is reasonably thin, free from air bubbles or gas bubbles arising from acidity, the pipette will still deliver less than eighteen grams of cream, for the reason that cream is lighter than milk, and since 17.6 cubic centimeters of milk will weigh eighteen grams, 17.6 cubic centimeters of cream of any degree of richness will weigh less than eighteen grams, and the richer the cream the less will be the weight of the pipette full, even supposing that all of it is delivered into the bottle. *Hence, the use of a 17.6 c.c. pipette results in tests which are too low.*

The 18 c.c. pipette was long ago suggested as the proper measure for cream for the Babcock test, and when the word "cream" meant hand skimmed cream, the 18 c.c. pipette was reasonably accurate, although not strictly so, because hand skimmed cream varied from 14 per cent to 20 per cent only, and

the 18 c.c. pipette would deliver very nearly eighteen grams of such cream. But it will not deliver eighteen grams of cream that tests 25 per cent, 35 per cent or 50 per cent and, as before, the richer the cream the less weight the 18 c.c. pipette will deliver, *and hence, the greater inaccuracy in the way of tests that are too low.*

If cream to be tested were uniformly free from air bubbles and gas bubbles, it would be possible to make a correction sheet, the use of which would correct the errors arising from the too small capacity of the 17.6 c.c or 18 c.c. pipette, but this unfortunately is not the case, and so the correction tables which have been used to some slight extent, can not be relied upon, for the reason that the error to be corrected is not always the same. Thus, a sample of cream which is sweet and smooth and free from bubbles and which really tests 40 per cent butterfat, would show perhaps in the cream test bottle a test of 38 per cent if the cream were measured into the bottle by using the 17.6 c.c. pipette. The same sample of cream, if allowed to sour, or if poured or stirred violently to make it smooth, will show anywhere from 32 per cent to 36 per cent or 37 per cent in the test bottle, if it is measured into the bottle by means of the 17.6 c.c. pipette. That is to say, the use of any pipette in cream testing is not even a reliable method of guessing at the butterfat contents of the cream.

Under present conditions cream is purchased at local creameries, whose whole product is made from cream thus received and tested; it is purchased at local creameries, part of whose product is milk tested by the Babcock method; it is shipped by individual shippers from a few miles to seventy-five or one hundred miles to a centralizing plant, and in a great many cases it is sold to a local agent of the centralizing plant, who weighs and tests the cream in the presence of the seller. It thus comes about that cream is tested by a great many people who are far from experts in the use of the Babcock test, and as the use of the pipette in testing cream produces results which are uniformly too low, the one so purchasing cream has an unfair advantage over his competitor who makes an accurate test, for the reason that he does not pay for all he gets. The law of this State very properly covers a case of this kind. There is a general statute providing penalties for the use of any false weight or measure, and a specific statute in regard to the use of a

chemical test to determine the amount of butterfat in milk or cream received or purchased.

SECTION 2523. *Milk test*.—Any person or corporation, or the employe of such person or corporation, who operates a creamery or cheese or condensed milk factory, and uses a chemical test to determine the quantity of butter-fat in milk purchased, used or received, shall so use only such tests as shall be clear oil, free from any foreign substance, and produce correct measurements of butter-fat, and every such person or persons using a milk test shall procure from the dairy commissioner for each factory so operated one standard tube or bottle, and one standard measure or pipette, for testing milk, certified and marked by him as in this chapter provided, which shall be kept for inspection by the patrons, and used by such person or corporation in testing or verifying test tubes or bottles and milk measures or pipettes used. In any action arising between such operator and patron, the burden of establishing the use of reliable tests and the results therefrom, equivalent to the standard herein provided, shall be upon the operator.

The attorney general states that the word "milk" in the above statute includes "cream" as well.

This statute refers to the use of a *chemical* milk test and as the Babcock test is the only chemical milk test in use in Iowa at present the practical application is to that test. The old oil test churn is not a chemical milk test and, hence, the statute does not apply to that. This section provides that every operator of the chemical milk test shall produce "correct measurements of butterfat." This will necessitate the use of a correct scale in cream testing and correct glassware. The dairy commissioner is required by law to furnish at cost to each operator a standard for testing the glassware for accuracy, so that there may be no excuse, except neglect, for the use of inaccurate bottles or pipettes of any kind for milk or cream testing.

This State has many dead creameries that would still be in operation if the patrons could have been made to believe that they were getting fair treatment in regard to the matter of the test. The importance of the test in buying either cream or milk is so great that self interest, as well as respect for the laws, should lead every operator of the test to provide himself with perfect and proper apparatus, and to so use the same that perfect and accurate results may be obtained. The importance of correct testing to the dairy business as a whole is so great that the law very properly provides a maximum penalty of six months' imprisonment or \$500 fine for violation of the statute quoted above. The dairy commissioner hopes to give wide pub-

licity to this statute so that prosecutions of offenders may not be necessary.

Some of the central plants discover that even when the pipette is used in testing they do not receive at the churning room as much butterfat as the receiving agent pays for, and so the farmer gets paid for more fat than he actually delivers. Hence it is argued that the pipette method ought to be satisfactory to the seller of the cream. These facts do not at all alter the statute requiring accurate testing nor affect what is required to make an accurate test. Doubtless the losses as outlined above occur because the sample is taken from the farmer's can in a slovenly manner. If the cream in the can is properly mixed, so that it is made uniform and smooth, the sampling is easily and accurately done.

Cream scales are at the best expensive and hard to keep in order. Most of them will do good work when new and in perfect order. None of them will do good work if the bearings are allowed to become rusty. A good cream scale should be so constructed that it may easily be taken apart and the bearings cleaned. It ought to be arranged to carry not more than one bottle on a side, and the cream ought to be weighed against the eighteen or nine gram weight and not against the weight of the cream that has just been put into the other bottle. The slide weights for balancing ought to be of small size. A scale that will weigh a drop or two of cream will not be found with balance weights that weigh a pound or two. A scale that will not act quickly will not weigh accurately and probably weighs too heavy. The operator having balanced the scale will continue to put cream in the bottle until that side goes down, which requires more weight than a sensitive scale will.

The following suggestions for cream testing are quoted from Bulletin 58, Bureau of Animal Industry, National Department of Agriculture:

CONDENSED DIRECTIONS FOR MAKING FAT TESTS OF CREAM.

SAMPLING:

- (1) Uniform composition and texture of cream is necessary.
- (2) This is obtained by pouring from one pail or can to another.
- (3) Frozen cream must be thawed before it can be sampled.
- (4) Churned cream can not be successfully sampled.
- (5) The tube sampler gives surest results.
- (6) The dipper sampler does well if the cream is thoroughly mixed.
- (7) Cream adhering to outside of tube should not get into sample jar.

- (8) The tube should be blown out with steam or rinsed with hot water before using each time.
- (9) Keep the top of the tube open while it goes down, so it may fill as fast as lowered.

KEEPING THE SAMPLES:

- (1) Sample jars must have tight-fitting covers and be kept tight.
- (2) If cream is dried in bottles it is evidence that covers are not tight enough to prevent escape of moisture.
- (3) Preservatives ~~must be~~ thoroughly mixed with cream; if too thick, heat the jars.
- (4) Do not shake the bottle to mix the cream; give it a rotary motion.
- (5) It is best to have samples protected from extreme heat or cold.
- (6) Churned cream gives only approximate results; dried cream gives too high results.
- (7) Extreme hot weather and lack of attention may cause separation of whey.
- (8) Do not take too large samples; it is a waste of cream.
- (9) Look after samples every day and see that they are in proper shape.

PREPARING SAMPLE FOR MEASURING INTO TEST BOTTLE:

- (1) Sample must be absolutely uniform throughout.
- (2) Heat sample to about 100° F., or until it is quite fluid.
- (3) If sample is weighed a much higher temperature may be used.
- (4) Pour from one cup to another until uniform.
- (5) The hotter the sample the more fluid it will be and the easier to make uniform.
- (6) Take care that no cream remains in sample jar adhering to the sides.
- (7) If sample is lumpy, press lumps through a fine wire sieve (such as is used for a teapot strainer).
- (8) Melt any churned samples, mix, and sample quickly.
- (9) Make things convenient for this work and see that it is thoroughly done.

MEASURING INTO TEST BOTTLE:

- (1) Weighing the sample is the only method that will give correct results.
- (2) Use delicate balances and keep them in perfect order.
- (3) Test weights and scales for accuracy before using.
- (4) Torsion balances are very accurate; weigh one test at a time.
- (5) Less than 9 grams may be used, but 9 or 18 grams are more convenient.
- (6) Air and gas bubbles in cream cause pipette tests to be inaccurate.
- (7) Specific gravity of cream causes pipette tests of cream to be too low.
- (8) Tables for correcting specific gravity are in use, but they do not correct for error caused by air and gas.
- (9) Weighing corrects all difficulties due to specific gravity and air or gas in cream.
- (10) Use great care to get the weights exactly right.

MAKING THE TEST:

- (1) Use enough acid to make a clear fat column; determine by trial.
- (2) Use condensed steam or rainwater for filling bottles.
- (3) After adding acid, fill bottles at once to bottom of neck with water at about 120° F., and then whirl five minutes.
- (4) Then add water of same temperature to bring fat within scale, and whirl two minutes.
- (5) Keep the temperature down to 120° F. while whirling.
- (6) Have a hole drilled in top of tester to insert thermometer.
- (7) Run the tester at as high speed as bottles will stand.
- (8) For hand tester put in boiling water when beginning to test till it nearly reaches the bottles.
- (9) For steam tester raise the lid slightly while making the test.
- (10) When through whirling keep tester closed, so as to maintain heat even as possible.

READING THE TEST:

- (1) See that line between fat and water is straight, and read from bottom to extreme top of fat column.
- (2) Read the depth of meniscus and deduct four-fifths of it from previous reading. A careful operator can estimate this.
- (3) Add 0.2 per cent to the result.
- (4) For 9-gram sample, double reading before adding 0.2 per cent.
- (5) Read at a temperature close to 120° F.
- (6) If bottles are placed in bath to regulate temperature, allow them to stand for fifteen minutes before reading.

THE TEST BOTTLES:

- (1) Use as narrow-necked bottles as possible, to get wide divisions of scale.
- (2) The 30 per cent 9-inch bottles graduated to 0.2 per cent are most accurate.
- (3) Use 9-gram charge with these, doubling the reading.
- (4) The 50 per cent 9-inch bottles are next in accuracy, graduated to 0.5 per cent.
- (5) The 30 per cent, 40 per cent, and 50 per cent 6-inch bottles are too inaccurate in results.
- (6) In wide necks the scale divisions are too close together and errors are more probable.
- (7) All bottles should be tested for correctness of calibration.
- (8) With cheap bottles nearly half are not correct.
- (9) Bottles guaranteed correct can not all be depended upon.

CONCLUDING NOTES.

Little more need be said except that there is still much work to be done to make a perfect cream test, free from the objections noted in this bulletin. The subject of preservatives for composite samples of cream is one that needs the attention of the chemists. A test bottle that will overcome the objectionable features noted is a study for some genius to work upon. A bottle

of uniform diameter would greatly simplify matters as they stand, so that a uniform correction could be made for all tests. The great importance of careful work in all details should be urged upon every user of the test. The amount of butterfat that may adhere to the bottle and remain below the neck should be studied and a large number of experiments made to determine the facts in the case. The common defects observed in field work were improper sampling, poor sample jars, the pipette method used in measuring samples, the test read too high and at too high temperature, and carelessness all along the line.

CREAM SAMPLING.

The sampling of cream for testing is a very important factor for correct testing, it is impossible to obtain an accurate test of a batch of cream unless the sample to be tested is absolutely correct. It is a very much more difficult matter to obtain a correct sample of cream than it is to obtain a correct sample of milk owing to the fact that most of the creamery operators take the sample of cream direct out of the cream can instead of pouring the cream into a weighing can as is usually done with the milk which mixes the milk and makes it ready for sampling.

The more fat there is in cream, the more difficult it is to obtain a correct sample on account of the cream being thicker. After cream has stood a short time in a can it separates from what milk or water there might have been mixed in it. The richest cream is on top and on the bottom of the can the cream is very light in butterfat. I have seen nothing but water at the bottom of the cream, which is due to water being used to flush the separator bowl.

The way to obtain a correct sample of the cream is either to pour the cream from one can to another a few times to thoroughly mix it, or use a rod or a heavy wire with a disk fastened on one end. The disk to be a trifle smaller than the opening in a ten-gallon can. The disk should be put down into the cream and worked quite vigorously with an up and down motion, and then immediately a sample taken for testing. This way is practiced in several of the large creameries with good satisfaction.

The practice of stirring the cream with a short handled dipper should be condemned as it is not possible to obtain a correct sample. The tin tube sampler or what is called a milk thief is not satisfactory unless the cream is first thoroughly mixed before the sample is taken.

P. H. K.

THE HANDLING OF HAND SEPARATED OR GATHERED CREAM.

We have now a great many creameries in our State that are making butter from hand separated or gathered cream. The butter from these creameries is not, as a rule, of as good quality as the butter is from whole milk cream. There ought not to be such a great difference in the quality of the butter from these creameries as there is at the present time. A creamery that is receiving enough cream so that it will pay to operate it should put forth every effort to improve the quality of the cream and make the butter in a practical and up to day manner. They should not be satisfied until they make just as good butter as the whole milk creamery. It may be proper to offer some suggestion how best to handle this cream.

The first important point is that cream should be of good quality, as the better the cream the better the butter. The cream should be kept at a low temperature until delivered to the creamery and every creamery should have a fixed time in the day when the cream should arrive and not be allowed to string in during the whole day and evening as then it will be impossible to properly handle the cream at the creamery. As soon as the cream begins to arrive at the creamery, the pasturizer should be started and the cream pasturized at 170° to 180° and immediately cooled to 50° and from the cooler run into a cream vat in which there is a 20 per cent starter which was previously prepared. It should be then well mixed and after four hours it should be churned out. In case the cream comes in perfectly sweet it will be all right to allow it to remain in the vat over night. If, however, somewhat sour it should not be allowed to remain in the vat over four hours. The above method is followed in some of our best creameries with good success.

P. H. K.

HAND SEPARATORS.

In the following table are given some facts as reported by the creameries. It is not intended that this report is absolutely complete, but so far as hand separators are reported by the creameries that report at all, the figures are, of course, correct. Hence, the number of hand separators here given is less than the number of hand separators in actual use, because there must have been some,—probably a good many,—that are not reported at all. Another indication of the growth of the hand separator in the State is found in the number of creamery separators reported. In 1897, 514 creameries reported that they were using 1,316 separators. This year, 516 creameries show only 816 separators. About thirty-nine or forty per cent of Iowa's butter product is made from hand separator cream. Last year's report shows thirty-eight exclusive hand separator creameries, which number has increased to seventy this year. The number of creameries shipping cream by rail has increased also from forty-five to sixty-one.

TABLE No. 1.

Counties.	No. of creameries reporting hand separators.	Hand separators reported.	No. of exclusive hand separator creameries.	No. receiving cream by rail.
THE STATE.....	383	25,887	70	61
Adair	8	420	...	...
Adams.....	...	...	...	...
Allamakee	5	592	3	...
Appanoose .....	...	...	...	...
Audubon	6	462	2	...
Benton	2	100	1	1
Black Hawk	3	229	1	2
Boone	1	6	...	...
Bremer .....	...	...	...	...
Buchanan	5	157	...	1

TABLE No. 1—CONTINUED.

Buena Vista	8	886	2	...
Builer	11	1,041	1	...
Calhoun	5	890	...	1
Carroll	5	890	2	1
Cass	2	48	...	...
Cedar	4	177	...	2
Cerro Gordo	8	81	1	1
Cherokee	4	206	8	1
Chickasaw	12	777	...	1
Clarke .....	...	...	...	...
Clay	5	208	1	1
Clayton	15	1,592	2	2
Clinton	6	190	...	2
Crawford	2	1,080	...	2
Dallas	8	89	...	1
Davis .....	...	...	...	...
Decatur	1	100	1	1
Delaware	8	188	1	1
Des Moines .....	...	...	...	...
Dickinson	2	111	...	1
Dubuque	8	1,061	2	2
Emmet	5	100	1	2
Fayette	6	324	1	1
Floyd	8	220	...	...
Franklin	6	242	...	1
Fremont .....	...	...	...	...
Greene	1	7	...	...
Grundy	6	155	...	...
Guthrie	7	320	...	...
Hamilton	5	89	...	1
Hancock	7	302	1	1
Hardin	7	351	...	1
Harrison	1	18	...	...
Henry .....	...	...	...	...
Howard	8	340	...	...
Humboldt	11	292	...	...
Ida	2	195	1	...
Iowa	8	89	...	...
Jackson	11	675	1	2
Jasper	1	25	...	...
Jefferson	1	60	...	...
Johnson .....	...	...	...	...
Jones	11	280	...	...
Keokuk .....	...	...	...	...
Kossuth	11	328	1	2
Lee .....	...	...	...	...
Lien	12	651	2	1
Louisa .....	...	...	...	...
Lucas .....	...	...	...	...
Lyon	2	190	...	1
Madison .....	...	...	...	...
Mahaska	1	175	1	1
Marion .....	...	...	...	...
Marshall	8	208	...	1
Mills .....	...	...	...	...

TABLE No. 1—CONTINUED.

County.	No. of creameries reporting hand separators.	Hand separators reported.	No. of exclusive hand separator creameries.	No. receiving cream by rail
Mitchell	6	367	.....	1
Monona	1	37	.....	.....
Monroe.....	1	32	.....	.....
Montgomery ...	.....	.....	.....	.....
Muscatine.....	1	18	.....	.....
O'Brien.....	3	445	1	1
Osceola.....	2	340	1	1
Page.....	1	340	1	1
Palo Alto.....	3	96	.....	.....
Plymouth.....	3	117	.....	.....
Pocahontas.....	4	248	3	1
Polk	4	1,786	2	2
Pottawattamie.....	4	774	2	.....
Poweshiek	4	314	1	1
Ringgold .....	.....	.....	.....	.....
Sac	3	427	.....	2
Scott.....	.....	.....	1	.....
Shelby.....	6	531	3	.....
Sioux	6	908	5	2
Story	5	93	.....	.....
Tama	3	252	1	1
Taylor.....	2	750	2	2
Union	1	49	.....	.....
Van Buren.....	.....	.....	.....	.....
Wapello	1	3	.....	.....
Warren	1	3	.....	.....
Washington.....	1	4	.....	.....
Wayne	1	50	1	1
Webster.....	1	20	2	2
Winnebago	6	90	.....	.....
Winneeshiek	10	702	.....	.....
Woodbury .....	.....	.....	2	2
Worth	3	97	.....	.....
Wright.....	5	413	2	1
THE STATE.....	333	25,397	70	31

TABLE NO. 2.

In the following table is reported the number of patrons and the number of cows, together with the number of creameries reporting on these items, so that some idea may be gained of the relative size of the creameries, and from this table it appears that the average creamery of the State has 998 cows tributary to it, which are owned by 130 patrons. Creameries of Iowa have a larger average patronage and make a larger average amount of butter than the creameries of any other State.

The table also shows the number of creameries using a commercial starter. If there is one thing more certain than another in modern creamery operation, it is that the intelligent use of a commercial starter very greatly improves the quality of the butter and so increases its market value and the amount of money the patrons of that creamery shall receive. Only the most skillful expert can have success with a "home-made" or "buttermilk" starter. The most skillful expert can not make as good butter without a commercial starter as he can with it, and the same thing is true of every other buttermaker of reasonable skill in making butter. The entry blanks of the winners of all the contests that have occurred for a number of years have shown they were using a commercial starter, and the statements of those who score around 85 very generally show the lack of any starter. The neglect to use the best obtainable commercial starter is a penny wise, pound foolish policy. It costs the creamery and the creamery patrons money not to use the most improved methods.

The other items in this table do not lead one to suppose that the best methods are universal in Iowa creameries.

TABLE No. 2.

TABLE SHOWING NUMBER OF PATRONS, COWS, CREAMERIES
USING ACID TEST, CREAMERIES THAT PASTEURIZE THE
SKIMMED MILK AND CREAMERIES THAT USE A SKIMMED
MILK WEIGHER.

THE STATE.....	514	66,798	331	330,557	100	139	134	233
Adair.....	9	1,187	5	7,281	4	4	2	4
Adams.....	1	220						
Allamakee.....	7	1,509	6	9,450	8	2		
Appanoose.....								
Audubon.....	9	1,000	9	8,300	8	5	7	3
Benton.....	8	404	1	310	1	2	1	
Black Hawk.....	15	2,674	11	8,913	6	6	8	11
Boone.....	2	166	2	1,500	2	2	2	1
Bremer.....	19	1,200	13	9,573	11	9	4	11
Buchanan.....	10	1,100	2	1,913	3	6	8	5
Buena Vista.....	8	414	8	3,300	2	1	1	
Butler.....	17	1,810	10	8,520	3	4	7	9
Calhoun.....	6	819	4	2,481	3	2	2	4
Carroll.....	8	965	4	1,330	4	8	2	6
Cass.....	2	130						
Cedar.....	5	510	4	2,790	1		1	1
Cerro Gordo.....	3	613	3	4,242				
Cherokee.....	3	210	2	700	1	1	1	
Chickasaw.....	16	2,451	10	10,715	3	4	6	6
Clarke.....								
Clay.....	6	565	8	1,400	3	3	5	2
Clayton.....	16	2,431	11	15,230	3	5	2	2
Clinton.....	8	687	6	3,719	6	7	7	3
Crawford.....	2	1,029			2	1		
Dallas.....	3	671	2	2,300	2	2	2	2
Davis.....								
Decatur.....	1	175				1		
Delaware.....	20	1,362	17	14,935	9	11	13	9
Des Moines.....								
Dickinson.....	4	813	5	1,550	1	2	2	2
Dubuque.....	17	984	17	8,550	3	3		7
Emmet.....	8	475	6	3,273	1		2	6
Fayette.....	17	2,880	14	15,407	6	8	11	7
Floyd.....	3	630	2	2,330	1			
Franklin.....	3	930	3	3,300	4	3	3	2
Fremont.....								
Greene.....	1	53	1	350		1	1	
Grundy.....	6	649	5	3,940	2	3	3	4
Guthrie.....	6	1,131	5	4,140		4	6	6
Hamilton.....	6	798	6	5,085	4	2	2	1
Hancock.....	3	632	7	4,943	2	2	2	3
Hardin.....	10	1,201	8	3,175	4	3	7	5
Harrison.....	2	141	2	980		2	1	2
Henry.....								
Howard.....	9	1,230	5	4,530	3	2	3	2

NUMBER OF PATRONS, COWS, ETC.—CONTINUED.

Counties.	No. of creameries reporting.	No. of patrons reported.	No. of creameries reporting number of cows.	No. of cows reported.	No. of creameries using commercial starter.	No. of creameries using test for acidity of cream.	No. of creameries that pasteurize skimmed milk.	Using skimmed milk weigher.
Humboldt.....	10	646	10	5,780	2	4	5	9
Ida.....	2	215	2	1,450	1	1	1	.....
Iowa.....	6	648	6	5,040	5	2	1	6
Jackson....	11	1,200	9	7,976	6	6	6	7
Jasper.....	2	175	1	800	.....	.....	.....	.....
Jefferson.....	8	235	2	955	1	1	.....	1
Johnson.....	.....	.....	.....	.....	.....	.....	.....	.....
Jones.....	18	1,868	9	14,618	8	8	2	7
Keokuk.....	.....	.....	.....	.....	.....	.....	.....	.....
Kossuth.....	20	1,848	15	8,188	4	7	10	16
Lee.....	.....	.....	.....	.....	.....	.....	.....	.....
Linn.....	14	1,197	11	7,825	5	5	7	10
Louisa.....	.....	.....	.....	.....	.....	.....	.....	.....
Lucas.....	.....	.....	.....	.....	.....	.....	.....	.....
Lyon.....	2	240	2	1,200	1	1	1	1
Madison.....	.....	.....	.....	.....	.....	.....	.....	.....
Mahaska....	1	200	1	1,500	1	1	1	1
Marion.....	.....	.....	.....	.....	.....	.....	.....	.....
Marshall.....	4	821	8	8,495	1	2	.....	1
Mills.....	.....	.....	.....	.....	.....	.....	.....	.....
Mitchell.....	8	1,614	8	11,746	.....	1	1	1
Monona.....	1	46	1	450	1	1	1	.....
Monroe.....	1	118	1	650	.....	.....	.....	1
Montgomery.....	.....	.....	.....	.....	.....	.....	.....	.....
Muscatine.....	1	200	1	950	.....	.....	.....	.....
O'Brien.....	4	442	8	2,100	2	2	1	8
Osceola.....	1	147	1	1,000	.....	.....	.....	.....
Page.....	1	800	.....	.....	.....	.....	.....	.....
Palo Alto.....	18	1,197	12	8,508	8	6	8	10
Plymouth.....	4	811	8	1,955	1	.....	.....	8
Pocahontas.....	4	282	8	1,850	1	.....	1	2
Polk.....	4	898	8	6,150	1	1	.....	.....
Pottawattamie.....	2	540	1	890	1	1	2	2
Poweshiek.....	4	425	2	1,050	8	4	8	.....
Ringgold.....	.....	.....	.....	.....	.....	.....	.....	.....
Sac.....	9	849	6	4,288	8	2	8	1
Scott.....	2	220	.....	.....	.....	.....	.....	.....
Shelby.....	8	842	8	2,190	2	2	2	.....
Sioux.....	5	994	5	8,132	4	2	1	1
Story.....	8	822	7	5,862	8	2	8	8
Tama.....	4	470	8	7,250	2	.....	2	1
Taylor.....	1	625	.....	.....	.....	.....	.....	.....
Union.....	1	854	.....	.....	.....	.....	.....	.....
Van Buren.....	.....	.....	.....	.....	.....	.....	.....	.....
Wapello.....	1	78	1	800	.....	.....	.....	.....
Warren.....	2	95	1	275	.....	.....	2	.....
Washington.....	1	140	1	1,200	.....	.....	.....	.....
Wayne.....	.....	.....	.....	.....	.....	.....	.....	.....
Webster.....	2	180	1	900	.....	.....	1	.....
Winnebago.....	8	968	7	7,892	.....	.....	.....	.....
Winneshiek.....	12	2,586	9	13,862	8	4	5	6
Woodbury.....	2	8,283	2	84,900	2	2	.....	.....
Worth.....	9	820	9	6,257	4	4	5	8
Wright.....	6	596	4	2,960	1	.....	1	.....
The State.....	516	66,798	391	880,557	169	180	194	223

COMPARISONS.

	1899.	1900.	1901.	1902.	1903.	1904.
Number of patrons of creameries.....	90,864	91,417	89,876	81,532	72,710	75,931
Average number of patrons per cream'ry	116	118	114	109	110	120
Total number of cows	625,512	631,829	637,984	579,700	569,732	587,822
Average number of cows per creamery	804	781	801	775	802	806
Average number of cows per patron...	7	7	7	7	8	8

TABLE No. 3.

The dairy commissioner very greatly regrets that it is impracticable to get an absolutely perfect report of the butter made in the State. The many changes in the management of creameries makes it impossible in some cases for the report to be given. It has been the policy of this department to secure as complete a report as possible and then to assume that the creameries that do report make up a fair average for all the creameries of the State. The following table will show the very great increase in the amount of butter made from cream, as well as an increase in the amount of butter made by each creamery, all of which, of course, was to be expected. The rapid growth of the use of the hand separator and the tendency towards concentration in the creamery business are both well known. About forty per cent of our butter is made from cream, mostly of the hand separator variety; the remainder is still made from whole milk.

As shown by previous reports of this office, and by the succeeding table as well, about ten per cent of the creamery butter is consumed in the State, and more than half of this amount by the patrons of the creameries themselves.

TABLE No. 3.

TABLE SHOWING NUMBER OF POUNDS OF MILK RECEIVED, NUMBER OF POUNDS OF CREAM RECEIVED, POUNDS OF BUTTER MADE, AMOUNT PAID TO PATRONS FOR MILK AND CREAM, POUNDS SOLD TO PATRONS IN IOWA AND SHIPPED OUTSIDE THE STATE, SO FAR AS REPORTED BY THE CREAMERIES.

Counties.	Number reporting.	Pounds of milk received.	Pounds of cream received.	Pounds of Butter Made, its Value and Market for Same.				
				Pounds of butter made.	Amount paid to patrons for milk and cream.	Pounds sold to patrons.	Pounds sold in Iowa.	Pounds shipped out of the State.
THE STATE	516	775,037,380	84,028,976	62,222,457	9,884,548	3,487,505	2,884,192	54,650,760
Adair	8	10,018,172	429,320	627,518	180,445	27,212	15,986	584,820
Adams .....	...	...	...	...	...	...	...	...
Allamakee	6	4,509,970	4,069,746	1,225,611	206,820	87,101	16,586	1,171,924
Appanoose .....	...	...	...	...	...	...	...	...
Audubon	9	17,044,887	828,487	1,058,550	157,626	88,198	8,747	1,488,610
Benton	1	53,819	90,088	60,098	8,888	2,087	7,247	20,809
Black Hawk	15	80,823,847	1,994,878	1,865,442	825,868	184,071	856,044	1,875,877
Boone	2	4,522,724	12,183	208,259	84,229	10,798	20,018	172,448
Bremer	19	47,152,141	...	2,107,648	810,007	196,654	28,562	1,882,482
Buchanan	9	82,884,378	1,868,047	1,867,283	825,506	154,823	26,868	1,785,522
Buena Vista	8	1,981,204	1,071,222	839,078	54,054	16,956	6,500	815,622
Butler	15	82,163,000	1,058,121	1,508,783	210,458	124,766	52,656	1,881,864
Calhoun	5	2,906,628	617,189	782,786	43,471	6,666	8,748	772,827
Carroll	8	5,517,143	1,484,859	794,711	117,826	45,586	19,800	729,875
Cass	2	1,823,928	40,900	84,657	12,587	8,968	...	80,669
Cedar	5	4,829,481	457,488	818,564	47,588	8,162	30,005	275,897
Cerro Gordo	4	...	1,700,211	486,881	76,866	10,782	89,964	885,685
Cherokee	3	...	1,068,480	278,384	49,085	8,586	19,486	255,812
Chickasaw	16	29,651,806	4,932,951	2,549,248	481,258	189,289	61,282	2,298,772
Clarke .....	...	...	...	...	...	...	...	...
Clay	6	6,088,260	288,525	865,462	64,254	70,592	17	294,858
Clayton	17	25,250,834	6,928,606	2,974,654	407,427	80,841	45,868	2,848,457
Clinton	8	10,802,629	810,815	549,168	73,040	18,886	21,768	514,069
Crawford	2	...	2,890,847	768,544	109,620	1,117	...	767,487
Dallas	8	8,966,626	238,490	294,694	45,552	6,145	45,696	242,868
Davis .....	...	...	...	...	...	...	...	...
Decatur	1	...	800,000	120,000	20,000	2,000	118,000	...
Delaware	20	59,060,588	418,518	2,719,790	470,808	227,640	86,124	2,405,286
Des Moines .....	...	...	...	...	...	...	...	...
Dickinson	8	8,470,815	117,551	202,070	19,669	17,797	1,114	188,169
Dubuque	19	80,862,054	171,856	1,467,054	246,689	88,501	40,246	1,852,807
Emmet	8	7,751,558	862,826	487,220	49,498	86,801	2,846	698,078
Fayette	17	49,801,212	984,458	2,507,727	421,025	206,888	56,788	2,244,141
Floyd	8	...	1,980,000	501,214	98,796	29,899	1,500	469,815
Franklin	7	9,669,777	1,851,581	609,198	105,794	37,002	989	571,252
Fremont .....	...	...	...	...	...	...	...	...
Greene	1	1,231,460	8,460	60,000	10,000	1,050	8,280	55,690
Grundy	7	14,188,480	708,816	754,947	110,529	72,814	4,062	674,571
Guthrie	7	12,075,464	556,645	727,048	122,842	86,665	88,581	657,797
Hamilton	6	18,406,577	151,520	642,260	105,986	182,126	8,451	506,688

TABLE NO. 3.—CONTINUED.

Counties.	Number reporting.	Pounds of milk received.	Pounds of cream received.	Pounds of Butter Made, its value and Market for Same.				
				Pounds of butter made.	Amount paid to patrons for milk and cream.	Pounds sold to patrons.	Pounds sold in Iowa.	Pounds shipped out of the State.
Hancock.....	8	4,446,198	1,186,208	542,542	\$ 82,400	18,109	3,211	521,222
Hardin.....	11	17,708,819	1,079,888	791,990	164,800	81,867	32,970	677,185
Harrison.....	2	1,987,885	84,516	96,565	16,842	7,426	35,636	51,508
Henry.....	.....	.....	.....	.....	.....	.....	.....	.....
Howard.....	9	11,829,686	2,400,000	1,018,560	167,068	26,247	1,621	935,492
Humboldt.....	11	10,000,273	1,111,931	754,800	104,545	48,237	669	706,894
Ia.....	2	490,000	578,000	216,833	35,241	6,210	.....	20,000
Iowa.....	6	10,815,957	201,898	594,164	88,684	126,788	25,851	441,885
Jackson.....	12	19,811,412	1,553,716	1,236,845	205,048	18,401	8,875	1,264,089
Jasper.....	2	4,049,747	20,000	182,971	29,080	11,894	5,592	165,985
Jefferson.....	8	2,847,148	296,956	280,237	32,710	10,677	12,000	257,580
Johnson.....	.....	.....	.....	.....	.....	.....	.....	.....
Jones.....	18	48,286,994	1,570,940	2,655,799	410,701	108,761	36,165	1,465,873
Keokuk.....	.....	.....	.....	.....	.....	.....	.....	.....
Kossuth.....	21	32,070,908	1,087,548	1,698,905	232,917	155,986	23,384	1,519,585
Lee.....	.....	.....	.....	.....	.....	.....	.....	.....
Linn.....	14	18,991,427	600,464	1,080,987	171,050	51,979	238,558	740,409
Louisa.....	.....	.....	.....	.....	.....	.....	.....	.....
Lucas.....	.....	.....	.....	.....	.....	.....	.....	.....
Lyon.....	2	1,148,524	491,689	178,065	31,451	5,400	1,500	171,165
Madison.....	.....	.....	.....	.....	.....	.....	.....	.....
Mahaska.....	1	.....	400,000	100,000	17,500	6,000	.....	94,000
Marion.....	.....	.....	.....	.....	.....	.....	.....	.....
Marshall.....	4	2,144,155	1,679,000	494,915	90,428	10,916	32,488	451,511
Mills.....	.....	.....	.....	.....	.....	.....	.....	.....
Mitchell.....	8	440,000	1,425,986	1,425,986	229,892	50,255	43,873	1,332,108
Monona.....	1	58,000	81,562	25,800	3,914	896	1,491	21,913
Monroe.....	1	1,597,523	40,400	76,829	18,256	2,691	1,219	72,419
Montgomery.....	.....	.....	.....	.....	.....	.....	.....	.....
Muscatine.....	1	451	451,960	112,960	12,976	540	30,650	81,770
O'Brien.....	5	3,972,640	1,258,000	518,476	86,138	19,983	3,796	466,807
Osceola.....	1	1,800,000	181,552	118,760	9,187	1,800	.....	.....
Page.....	1	.....	2,000,000	588,000	117,600	.....	67,000	521,000
Palo Alto.....	18	29,505,473	167,328	1,414,671	227,277	187,856	46,680	1,260,135
Plymouth.....	4	5,546,449	237,084	302,811	54,989	18,512	9,800	273,989
Pocahontas.....	4	960,000	806,180	78,280	20,390	3,686	1,000	74,594
Polk.....	4	226,282	3,084,198	875,109	148,440	6,336	202,185	668,698
Pottawattamie.....	3	609,256	668,561	807,181	51,719	2,986	230,502	72,703
Poweshiek.....	4	2,960,886	1,116,982	838,592	63,624	2,580	2,580	373,432
Ringgold.....	.....	.....	.....	.....	.....	.....	.....	.....
Sac.....	8	2,827,000	1,458,500	553,964	102,439	20,983	171,000	302,681
Scott.....	.....	.....	.....	.....	.....	.....	.....	.....
Shelby.....	8	6,578,540	1,270,909	637,948	98,822	36,743	10,858	590,345
Sioux.....	5	264,831	2,425,242	920,446	152,055	15,800	7,734	996,252
Story.....	8	16,508,104	350,460	807,296	144,680	37,594	15,45	704,251
Tama.....	3	2,423,958	98,064	208,640	38,601	1,086	1,000	203,554
Taylor.....	2	.....	3,050,000	724,897	111,715	1,000	3,700	720,197
Union.....	1	689,052	102,160	54,512	9,512	2,219	854	62,233
Van Buren.....	.....	.....	.....	.....	.....	.....	.....	.....
Wapello.....	1	1,010,000	7,025	47,500	8,048	2,100	30,839	14,541
Warren.....	2	1,200,000	.....	53,782	9,678	2,850	15,832	35,700
Washington.....	2	.....	432,000	107,611	16,776	120	15,000	32,491
Wayne.....	1	6,187,577	200,000	336,878	60,000	2,200	1,200	333,473
Webster.....	2	352,725	875,000	100,383	15,468	4,224	6,000	90,109
Winnebago.....	8	19,158,014	1,214,885	925,010	147,402	103,885	30,053	791,073

TABLE No. 3—CONTINUED.

Counties.	Number reporting.	Pounds of milk received.	Pounds of cream received.	Pounds of Butter Made, Its Value and Market for Same.				
				Pounds of butter made.	Amount paid to patrons for milk and cream.	Pounds sold to patrons.	Pounds sold in Iowa.	Pounds shipped out of the State.
Winnebago	12	7,850,000	1,920,015	1,920,015	\$ 816,209	16,542	18,514	1,864,959
Woodbury	2	.....	4,740,000	2,715,690	458,878	600	150,000	2,565,090
Worth	9	12,761,618	754,591	1,498,508	188,012	59,227	2,208	1,487,078
Wright	6	1,167,958	1,528,644	461,088	76,961	28,215	12,287	419,614
The State...	518	775,087,890	84,028,976	62,222,457	\$9,884,548	3,487,505	2,884,192	54,650,760

CHEESE MAKING.

Cheese making in Iowa has never reached any great proportions, and the industry, though small, has been still further decreased by the general conditions that have decreased the make of butter. There are now forty-one cheese factories in the State, only a few of which are making more than fifty thousand pounds of cheese. The total cheese reported by thirty-six of these factories is 1,809,030, for which they have paid their patrons \$156,428. Most of the cheese factories of the State are making cheese principally for local and immediate consumption. The number of cheese factories in the State has been steadily decreasing for quite a number of years.

TABLE No. 4.

TABLE SHOWING NUMBER OF COWS FOR EACH COUNTY AND FOR THE STATE FOR THE YEARS 1900, 1901, 1902, 1903, 1904, AND VALUES FOR 1904.

Figures are from the reports of county auditors to the state auditor for the Years 1900, 1901, 1902, 1903 and 1904.

Counties.	Number.	Value.	Number.			
	1904.	1904.	1903.	1902.	1901.	1900.
THE STATE.....	1,373,496	\$30,675,501	1,370,063	1,423,343	1,332,242	1,295,900
Adair	17,299	334,926	17,013	17,724	16,192	14,050
Adams	11,064	252,257	11,926	12,524	11,857	10,763
Allamakee	14,185	235,729	13,639	13,345	13,550	12,677
Appanoose	12,373	350,568	11,598	12,012	11,910	10,933
Audubon	13,204	267,733	13,233	13,673	12,920	11,531
Benton.....	16,739	409,919	17,959	18,663	18,653	17,407
Black Hawk	13,047	433,263	17,963	19,072	18,647	17,607
Boone	14,369	239,136	14,239	15,169	15,543	13,631
Bremer	17,900	425,357	17,605	17,492	17,939	17,671
Buchanan.....	15,917	373,219	16,566	17,316	17,605	17,254
Buena Vista.....	14,497	297,309	15,023	15,914	15,046	14,094
Butler	16,024	321,312	15,564	15,497	16,157	15,954
Calhoun.....	11,892	249,339	13,752	14,215	13,544	12,330
Carroll	15,031	304,990	15,553	15,325	16,172	14,467
Cass.....	13,971	233,903	14,290	14,446	13,372	12,299
Cedar	16,637	424,176	16,615	17,929	17,307	16,475
Cerro Gordo.....	12,132	242,536	12,713	12,252	12,609	11,796
Cherokee	11,969	246,476	12,466	13,377	13,939	11,743
Chickasaw	14,330	357,651	14,330	15,773	15,532	15,307
Clarke	9,554	217,740	10,163	10,701	10,236	9,337
Clay	11,794	233,046	12,110	12,464	12,732	11,639
Clayton	22,652	532,192	21,724	21,714	21,698	20,350
Clinton	19,500	470,035	19,541	19,703	19,533	19,167
Crawford	17,261	353,512	17,344	16,917	16,197	14,997
Dallas	13,333	299,539	13,152	13,346	14,169	13,703
Davis	10,525	253,043	10,020	10,230	10,252	9,377
Decatur.....	13,354	232,746	13,210	14,015	17,331	12,040
Delaware	21,923	444,376	21,334	20,336	21,163	20,301
Des Moines	8,941	239,933	8,779	8,624	8,501	7,733
Dickinson.....	6,463	154,669	6,502	7,010	6,342	6,133
Dubuque.....	19,415	469,305	13,169	13,054	19,095	17,344
Emmet	7,423	143,302	7,593	7,030	6,712	5,394
Fayette	22,399	537,596	21,763	23,013	22,575	22,333
Floyd	11,432	235,193	12,003	12,462	12,604	12,930
Franklin	13,027	267,523	13,630	13,301	13,056	12,117
Fremont	8,346	190,644	8,744	8,602	8,214	7,497
Greene	13,433	275,160	.....	4,902	13,373	12,955
Grundy	14,243	320,624	14,559	15,177	15,214	14,773
Guthrie.....	15,925	342,539	16,197	17,354	15,961	14,525
Hamilton	14,757	309,739	15,267	16,039	15,535	14,441
Hancock	11,114	177,953	11,530	11,573	11,160	10,003
Hardin	14,642	294,937	15,519	17,113	15,625	14,639
Harrison.....	13,331	273,312	4,325	14,933	14,214	12,631
Henry	8,374	203,334	8,264	8,793	8,909	8,621
Howard.....	12,636	235,629	12,633	13,051	13,031	11,635

TABLE No. 4—CONTINUED.

Counties.	Number.	Value.	Number.			
	1904.	1904.	1903.	1902.	1901.	1900.
Humboldt	10,816	\$ 212,810	10,696	11,081	11,206	10,858
Iowa	8,563	205,841	8,949	9,472	9,808	8,165
Jackson	16,815	406,244	16,986	17,175	17,882	15,457
Jasper	17,180	427,165	16,684	16,759	16,870	15,587
Jefferson	17,889	452,008	18,689	18,862	17,974	16,201
Johnson	9,170	221,718	9,110	9,665	9,806	8,228
Jones	17,173	439,206	7,898	17,549	17,897	17,430
Keokuk	18,623	459,904	17,757	18,175	19,045	18,454
Kossuth	18,907	827,281	14,279	14,922	14,208	18,840
Lee	20,415	405,815	21,289	22,912	21,467	19,846
Linn	11,624	291,649	11,118	10,868	10,626	10,570
Louis	21,208	522,474	21,212	22,071	20,658	20,646
Louisa	7,186	186,980	7,845	7,675	7,256	6,701
Lucas	9,911	205,586	10,188	10,227	9,887	9,238
Lyon	10,640	285,554	10,724	10,859	9,281	8,289
Madison	18,088	290,606	18,763	15,888	14,095	18,800
Mahaska	18,650	292,900	18,676	18,919	18,755	12,840
Marion	12,500	314,316	18,063	18,226	12,667	11,225
Marshall	15,804	339,044	15,891	16,496	15,557	14,167
Mills	9,801	222,488	9,255	9,808	9,089	8,588
Mitchell	11,777	237,821	11,684	12,008	11,744	11,198
Monona	11,097	222,590	11,651	12,525	11,578	11,757
Monroe	9,882	244,044	9,027	8,981	9,152	8,222
Montgomery	10,680	214,584	10,954	10,853	10,402	9,907
Muscatine	10,273	298,586	10,228	9,168	11,040	10,104
O'Brien	12,971	285,670	17,723	12,895	12,856	11,023
Osceola	7,163	148,490	7,142	7,118	6,485	5,831
Page	14,043	342,627	13,661	14,067	11,875	12,756
Palo Alto	18,008	250,062	18,778	14,764	14,869	14,805
Plymouth	18,046	365,080	17,868	16,848	16,299	14,598
Pocahontas	12,854	247,845	13,493	14,088	14,191	12,790
Polk	16,005	367,351	15,682	15,492	14,815	13,616
Pottawattamie	22,479	539,496	21,983	22,856	21,878	18,836
Poweshiek	15,649	380,180	15,978	16,220	15,827	14,786
Ringgold	12,453	277,795	12,525	13,832	12,723	12,811
Sac	15,827	332,661	15,615	16,546	15,472	14,658
Scott	14,674	405,801	14,717	14,899	14,995	14,204
Shelby	17,594	368,215	16,674	17,960	17,117	15,195
Sioux	17,832	375,108	16,839	16,187	14,838	18,409
Story	14,505	296,822	15,062	16,017	15,112	14,894
Tama	18,089	422,071	16,461	18,088	17,974	17,023
Taylor	18,280	278,445	18,577	12,821	13,458	11,833
Union	11,114	247,804	12,024	12,785	11,590	11,844
Van Buren	9,772	240,507	9,154	9,247	9,099	8,678
Wapello	9,795	219,185	9,672	9,877	9,608	8,925
Warren	18,542	335,052	14,888	15,106	14,084	13,022
Washington	12,290	281,219	12,831	11,267	12,972	12,620
Wayne	13,459	286,459	13,418	14,064	14,459	13,178
Webster	15,273	351,165	16,156	16,185	15,433	14,923
Winnebago	11,072	177,491	11,519	11,769	10,450	9,868
Winnechick	19,897	465,840	18,618	18,834	19,068	17,809
Woodbury	14,739	295,267	15,073	16,139	16,106	13,835
Worth	11,124	224,040	11,335	11,980	11,680	11,896
Wright	12,480	247,420	12,886	13,796	13,749	12,191
The State	1,873,496	\$80,675,501	1,870,062	1,424,848	1,582,242	1,295,960

Average value of cows, \$22.33.

The assessors classify as follows: Heifers one year old, 502,578, average value, \$12.46.
 Heifers two years old, 824,470, average value, \$17.44. Cows, 1,378,496.

TABLE No. 4.

TABLE SHOWING NUMBER OF COWS FOR EACH COUNTY AND FOR THE STATE FOR THE YEARS 1900, 1901, 1902, 1903, 1904, AND VALUES FOR 1904.

Figures are from the reports of county auditors to the state auditor for the Years 1900, 1901, 1902, 1903 and 1904.

Counties.	Number.	Value.	Number.			
	1904.	1904.	1903.	1902.	1901.	1900.
THE STATE.....	1, 878, 496	\$30, 075, 501	1, 870, 083	1, 428, 848	1, 382, 242	1, 295, 980
Adair	17, 299	884, 926	17, 018	17, 724	16, 192	14, 050
Adams	11, 064	252, 257	11, 926	12, 524	11, 857	10, 762
Allamakee	14, 185	235, 729	13, 689	13, 836	13, 550	12, 677
Appanoose	12, 272	350, 568	11, 598	12, 012	11, 910	10, 988
Audubon	13, 204	267, 738	13, 282	13, 673	12, 920	11, 581
Benton.....	16, 789	409, 919	17, 959	18, 668	18, 653	17, 407
Black Hawk	18, 047	483, 268	17, 968	19, 072	18, 647	17, 807
Boone	14, 869	239, 186	14, 289	15, 169	15, 543	13, 681
Bremer	17, 900	425, 857	17, 605	17, 492	17, 989	17, 671
Buchanan.....	15, 917	378, 219	16, 566	17, 816	17, 605	17, 254
Buena Vista	14, 497	297, 809	15, 028	15, 914	15, 046	14, 094
Butler	16, 024	321, 812	15, 564	15, 497	16, 157	15, 954
Calhoun.....	11, 892	249, 839	13, 758	14, 215	13, 544	12, 380
Carroll	15, 081	304, 990	15, 558	15, 825	16, 172	14, 467
Cass.....	18, 971	233, 906	14, 290	14, 446	13, 872	12, 299
Cedar	16, 687	424, 176	16, 615	17, 929	17, 807	16, 475
Cerro Gordo	12, 132	242, 586	12, 718	12, 252	12, 609	11, 795
Cherokee	11, 969	246, 476	12, 466	13, 877	13, 909	11, 743
Chickasaw	14, 880	357, 651	14, 890	15, 773	15, 582	15, 807
Clarke	9, 554	217, 740	10, 168	10, 701	10, 296	9, 397
Clay	11, 794	239, 046	12, 110	12, 464	12, 782	11, 689
Clayton	22, 652	532, 192	21, 724	21, 714	21, 698	20, 350
Clinton	19, 500	470, 085	19, 541	19, 706	19, 583	19, 167
Crawford	17, 261	353, 512	17, 844	16, 917	16, 197	14, 997
Dallas	13, 888	299, 539	15, 152	15, 346	14, 169	13, 708
Davis	10, 525	253, 048	10, 020	10, 260	10, 258	9, 877
Decatur.....	13, 854	282, 746	13, 210	14, 015	17, 331	12, 040
Delaware	21, 923	444, 376	21, 884	20, 896	21, 163	20, 361
Des Moines	8, 941	239, 988	8, 779	8, 624	8, 501	7, 798
Dickinson.....	6, 463	154, 669	6, 502	7, 010	6, 842	6, 188
Dubuque.....	19, 415	469, 805	18, 169	18, 054	19, 065	17, 844
Emmet	7, 423	148, 802	7, 598	7, 080	6, 712	5, 894
Fayette	22, 899	537, 596	21, 768	23, 013	22, 575	22, 232
Floyd	11, 432	235, 138	12, 008	12, 462	12, 604	12, 920
Franklin	13, 027	267, 523	13, 680	13, 801	13, 066	12, 117
Fremont	8, 846	190, 644	8, 744	8, 602	8, 214	7, 497
Greene	13, 483	275, 160	.....	4, 902	13, 873	12, 953
Grundy	14, 243	326, 624	14, 559	15, 177	15, 214	14, 773
Guthrie.....	15, 925	342, 539	16, 197	17, 354	15, 961	14, 525
Hamilton	14, 757	309, 759	15, 267	16, 099	15, 585	14, 441
Hancock	11, 114	177, 958	11, 580	11, 573	11, 160	10, 008
Hardin	14, 643	294, 987	15, 519	17, 113	15, 525	14, 699
Harrison.....	13, 881	273, 812	4, 825	14, 986	14, 214	12, 661
Henry	8, 274	203, 884	8, 264	8, 793	8, 909	8, 621
Howard.....	12, 626	235, 629	12, 638	13, 051	13, 081	11, 695

TABLE No. 4—CONTINUED.

Counties.	Number.	Value.	Number.			
	1904.	1904.	1903.	1902.	1901.	1900.
Humboldt	10,816	\$ 212,810	10,695	11,661	11,206	10,858
Iowa	8,563	205,841	8,949	9,472	9,808	8,165
Jackson	16,815	406,244	16,986	17,175	17,882	15,457
Jasper	17,180	427,165	16,684	16,759	16,870	15,587
Jefferson	17,889	452,088	18,689	18,862	17,974	16,201
Johnson	9,170	221,718	9,110	9,665	9,806	8,228
Jones	17,173	439,206	7,898	17,549	17,897	17,430
Keokuk	18,523	459,904	17,757	18,175	19,045	18,454
Kossuth	18,907	827,281	14,279	14,922	14,208	13,840
Lee	20,415	405,815	21,289	22,912	21,467	19,846
Linn	11,624	291,649	11,118	10,868	10,626	10,570
Louis	21,208	522,474	21,212	22,071	20,653	20,646
Louisa	7,186	186,980	7,845	7,675	7,256	6,701
Lucas	9,911	205,586	10,188	10,227	9,837	9,238
Lyon	10,640	235,554	10,724	10,859	9,281	8,289
Madison	18,068	290,606	18,763	15,868	14,095	13,800
Mahaska	18,650	292,900	18,676	18,919	18,755	12,840
Marion	12,500	314,816	13,063	13,226	12,607	11,225
Marshall	15,804	339,044	15,891	16,496	15,557	14,167
Mills	9,801	222,488	9,255	9,808	9,089	8,568
Mitchell	11,777	237,821	11,684	12,008	11,744	11,198
Monona	11,097	222,580	11,651	12,525	11,578	11,757
Monroe	9,882	244,044	9,027	8,981	9,153	8,222
Montgomery	10,680	214,584	10,944	10,853	10,402	9,907
Muscatine	10,273	298,586	10,223	9,143	11,040	10,104
O'Brien	12,971	235,670	17,723	12,895	12,256	11,023
Oceola	7,168	148,490	7,142	7,118	6,485	5,831
Page	14,048	342,627	13,661	14,067	11,875	12,756
Palo Alto	13,008	250,062	13,773	14,764	14,609	14,805
Plymouth	13,046	365,080	17,868	16,843	16,299	14,598
Pocahontas	12,854	247,845	13,498	14,083	14,191	12,790
Polk	16,005	367,351	15,682	15,492	14,815	13,616
Pottawattamie	22,479	539,496	21,933	22,356	21,878	18,336
Poweshiek	15,649	330,180	15,978	16,220	15,327	14,736
Ringgold	12,453	277,795	12,525	13,862	12,723	12,811
Sac	15,827	332,661	15,615	16,546	15,472	14,658
Scott	14,674	405,801	14,717	14,899	14,995	14,204
Shelby	17,594	368,215	16,674	17,900	17,117	15,195
Sioux	17,832	375,108	16,869	16,187	14,838	13,409
Story	14,505	296,822	15,082	16,017	15,112	14,394
Tama	13,069	422,071	16,461	13,068	17,974	17,023
Taylor	13,280	278,445	13,577	12,821	13,453	11,833
Union	11,114	247,804	12,024	12,735	11,590	11,344
Van Buren	9,772	240,507	9,154	9,247	9,099	8,678
Wapello	9,795	219,185	9,672	9,877	9,608	8,925
Warren	13,542	335,052	14,868	15,106	14,084	13,022
Washington	12,290	281,219	12,331	11,267	12,973	12,620
Wayne	13,449	286,419	13,418	14,064	14,459	13,178
Webster	15,273	351,165	16,156	16,185	15,438	14,923
Winnebago	11,072	177,491	11,519	11,769	10,450	9,368
Winnebush	19,397	465,340	13,613	13,334	19,063	17,309
Woodbury	14,739	295,267	15,073	16,139	16,106	13,335
Worth	11,124	224,040	11,335	11,980	11,680	11,336
Wright	12,480	247,420	12,336	13,796	13,749	12,191
The State	1,373,496	\$30,675,501	1,370,082	1,423,343	1,382,242	1,295,900

Average value of cows, \$22.33.

The assessors classify as follows: Heifers one year old, 502,578, average value, \$12.46. Heifers two years old, 324,470, average value, \$17.44. Cows, 1,373,496.

CREAMERY LIST.

List of Creameries in the State, Alphabetically Arranged According to Counties and Towns near which Creameries are Located, Together with Information Pertaining to Each.

Office record number.	Location.	Name of Creamery.	How operated.	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager.	Name of Butter Maker.	Separator or substituted or	Method of testing milk.
Adair County								
1	Adair	Adair Co-op. Creamery Co.	Co-op.	W. F. Mason, Secretary.	Adair	O. E. McIntire	Separator	Test.
2	Arbor Hill	Arbor Hill Co-op. Creamery Co.	Co-op.	C. C. Pease, Sec. & Mgr	Stuart	R. J. Erb	S. & J. O.	Test.
3	Fontanelle	Blue Grass Creamery	Indiv.	A. L. Stewart & Co.	Fontanelle	L. E. Stewart	Separator	Test.
4	Canby	Blue Grass Creamery (s)	Indiv.	A. L. Stewart & Co.	Fontanelle		Separator	Test.
5	Fisk	Blue Grass Creamery (s)	Indiv.	A. L. Stewart & Co.	Fontanelle		Separator	Test.
6	Prussia	Blue Grass Creamery (s)	Indiv.	A. L. Stewart & Co.	Fontanelle		Separator	Test.
7	Greenfield	Blue Grass Creamery (s)	Indiv.	A. L. Stewart & Co.	Fontanelle		Separator	Test.
8	Greenfield	Blue Grass Creamery (s)	Indiv.	A. L. Stewart & Co.	Fontanelle		Separator	Test.
9	Stuart	Blue Grass Creamery (s)	Indiv.	A. L. Stewart & Co.	Fontanelle		Separator	Test.
10	Bridgewater	Blue Grass Creamery (s)	Indiv.	A. L. Stewart & Co.	Fontanelle		Separator	Test.
11	Hebron	Blue Grass Creamery (s)	Indiv.	A. L. Stewart & Co.	Fontanelle		Separator	Test.
Adams County								
12	Prescott	Prescott Butter & Cheese Ass'n	Co-op.	G. W. Iden, Secretary.	Prescott	F. Beal	Separator	Test.
13	Carl	Prescott Butter & Cheese Ass'n (s)	Co-op.	G. W. Iden, Secretary.	Prescott		Separator	Test.
14	Williamson	Prescott Butter & Cheese Ass'n (s)	Co-op.	G. W. Iden, Secretary.	Prescott		Separator	Test.
15	Williamson	Prescott Butter & Cheese Ass'n (s)	Co-op.	G. W. Iden, Secretary.	Prescott		Separator	Test.
16	Mount Shina	Prescott Butter & Cheese Ass'n (s)	Co-op.	G. W. Iden, Secretary.	Prescott		Separator	Test.
17	Nevinsville	Prescott Butter & Cheese Ass'n (s)	Co-op.	G. W. Iden, Secretary.	Prescott		Separator	Test.
Atchafalpa County								
18	Dorchester	Dorchester Creamery	Indiv.	Ben. V. Ferris	Dorchester	Ben. W. Schulte	Hand Sep	Oil test.
19	Leaning	Dorchester Creamery	Indiv.	Ben. V. Ferris	Dorchester	Ben. W. Schulte	Hand Sep	Oil test.
20	Postville	Dorchester Creamery	Indiv.	Ben. V. Ferris	Dorchester	Ben. W. Schulte	Hand Sep	Oil test.
21	Waverly	Dorchester Creamery	Indiv.	Ben. V. Ferris	Dorchester	Ben. W. Schulte	Hand Sep	Oil test.
22	Ludlow	Dorchester Creamery	Indiv.	Ben. V. Ferris	Dorchester	Ben. W. Schulte	Hand Sep	Oil test.
23	Quandahl	Dorchester Creamery	Indiv.	Ben. V. Ferris	Dorchester	Ben. W. Schulte	Hand Sep	Oil test.
24	Waukon	Dorchester Creamery	Indiv.	Ben. V. Ferris	Dorchester	Ben. W. Schulte	Hand Sep	Oil test.

CREAMERY LIST—CONTINUED.

93	Swena Vista C.	Co-op.	Albert City.....	S. M. Yayer.....	Hand Sep	Test.
94		Co-op.	Newell.....	O. A. Allison.....	S. & G. C.	Test.
95		Co-op.	Newell.....	Geo. Allard.....	S. & G. C.	Test.
96		Co-op.	Storm Lake.....	A. H. Adams.....	Hand Sep	Test.
Butler County—						
96		Co-op.	Aplington.....	Wm. Gilbert.....	Separator	Test.
97		Indiv.	Austinville.....	S. Patterson.....	Separator	Test.
98		Indiv.	Allison.....	W. H. Codine.....	Separator	Test.
99		Co-op.	Greene.....	P. J. Bagarty.....	Gath. Cr.	Oil test.
100		Stock.	Clarksville.....	W. S. Barkeley.....	Separator	Test.
101		Indiv.	Dumont.....	A. W. Snyder.....	Separator	Test.
102		Indiv.	Aredale.....	.....	Separator	Test.
103		Co-op.	Eleanor.....	Will Cornell.....	Separator	Test.
104		Indiv.	Kesley.....	A. Whitney.....	Separator	Test.
105		Co-op.	New Hartford.....	W. F. Graham.....	Separator	Test.
106		Co-op.	New Hartford.....	Peter Larson.....	Separator	Test.
107		Stock.	Parkersburg.....	G. A. Palmer.....	Separator	Test.
108		Stock.	Sinclair.....	.....	Separator	Test.
109		Co-op.	Shell Rock.....	M. J. Johnson.....	Separator	Test.
110		Indiv.	Shell Rock.....	Adolph Olson.....	Separator	Test.
111		Co-op.	Shell Rock.....	W. J. Oave.....	Separator	Test.
112		Indiv.	Shell Rock.....	A. B. Walker.....	Hand Sep	Test.
113		Co-op.	Greene.....	F. Fisher.....	Separator	Test.
114		Co-op.	New Hartford.....	O. F. Courbet.....	Separator	Test.
Calhoun County—						
115		Indiv.	Lytton.....	Geo. Hillmann.....	Separator	Test.
116		Co-op.	Lake City, E. S.....	Carl Lesner.....	S. & G. C.	Test.
117		Co-op.	Lytton.....	Olaf Olson.....	Separator	Test.
118		Indiv.	Manson.....	Olaf Olson.....	S. & G. C.	Test.
119		Stock.	Pomeroy.....	Olaf Olson.....	S. & G. C.	Test.
120		Stock.	Rockwell City.....	J. E. Lauridsen.....	S. & G. C.	Test.
		Stock.	Rockwell City.....	Henry Belfrano.....	S. & G. C.	Test.
Carroll County—						
121		Stock.	Arcadia.....	.....	Separator	Test.
122		Co-op.	Breda.....	S. J. Jane.....	Separator	Test.
123		Indiv.	Coon Rapids.....	.....	Hand Sep	Test.
124		Co-op.	Lanesboro.....	.....	S. & G. C.	Test.
125		Co-op.	Mount Carmel.....	.....	Separator	Test.
126		Indiv.	Roselle.....	.....	Separator	Hund.
127		Stock.	Templeton.....	.....	Separator	Test.
128		Stock.	Templeton, Neb.....	.....	Hand Sep	Test.
129		Indiv.	Breda.....	.....	Gath. Cr.	Test.

CREAMERY LIST—CONTINUED.

Office record number	Location.	Name of Creamery.	How operated.	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager.	Name of Butter Maker.	Separator or Gath. used.	Method of re. coining of milk.
Cass County—								
180	Cumberland	Farmers Mutual Crm. company	Co-op.	P. Pettinger, Secretary	Cumberland	Albert Heyn.	S. & G. C. Separator	Test.
181	Griswold	Lyman Co-op. Mut. Crm Co.	Co-op.	W. O. Mueller	Griswold	W. E. Oarol	Separator	Test.
182	Atlantic	Farmers Creamery company	Co-op.					Test.
Cedar County—								
183	Bennett		Indiv.	W. H. Kroeger, Proprietor	Bennett	W. H. Kroeger	Separator	Test.
184	Clarence		Indiv.	E. Huxoll, Proprietor	Clarence	E. Huxoll	Separator	Hand.
185	Clarence		Indiv.	Henry Stuck, Proprietor	Clarence	Henry Struck	Gath. Cr.	Oil test.
186	Durant		Stock.	M. C. Bohstedt, Secretary	Durant	E. A. Kinzel	Gath. Cr.	Test.
187	Lowden		Indiv.	G. F. Reinking, Proprietor	Lowden	Geo. Reinking	Gath. Cr.	Oil test.
188	Lowden		Indiv.	Chas. O. Boettger, Proprietor	Lowden	Chas. O. Boettger	Separ. or Separator	Test.
189	Lowden		Indiv.	E. Huxoll, Proprietor	Clarence	L. Elliott	Separator	Hand.
190	West Branch		Indiv.	Eves & Elliott, Proprietors	West Branch		S. & G. C.	T. st.
191	Springdale	West Branch Creamery (s)	Indiv.	Eves & Elliott, Proprietors	West Branch		S. & G. C.	Test.
Cerro Gordo County—								
192	Mason City	J. D. Bickel Produce company	Indiv.	M. V. Bickel, Secretary	Mason City	Nicholas Fisher	Gath. Cr.	Test.
193	Plymouth	Plymouth Creamery company	Co-op.	O. A. Molaberry, Secretary	Plymouth		Separator	Test.
194	Portland	Portland Creamery	Indiv.	O. E. Sweet, Proprietor	Portland	O. E. Sweet	Gath. Cr.	Test.
195	Rockwell	Rockwell Creamery	Indiv.	G. H. Gurler, Proprietor	DeKalb, Ill.	Charles Logan	Gath. Cr.	Test.
196	Thornton	Thornton Creamery	Indiv.	G. W. Kennedy, Proprietor	Thornton	Chris. Mortensen	Gath. Cr.	Test.
197	Waverly	Waverly Creamery	Indiv.	M. J. Kernan, Proprietor	Waverly	M. J. Kernan	Gath. Cr.	Test.
198	Ventura	Fertile Co-operative Dairy Co (s)	Co-op.	J. T. Tallackson	Fertile		Separator	Test.
Cherokee County—								
199	Aurelia	Aurelia Creamery	Indiv.	McAdam & Tolson & Co	Elgin, Ill.	Alex. McAdam	Hand Sep.	Test.
200	Larrabee	Larrabee Creamery	Indiv.	A. Younger, Proprietor	Larrabee	A. Younger	Hand Sep.	Test.
201	Marcus	White Rose Creamery	Indiv.	O. E. Austin, Proprietor	Marcus	E. F. Julian	S. & G. C.	Test.
202	Washita	Washita Creamery	Indiv.	James Robertson, Jr., Sec.	Washita	E. I. Soper	Gath. Cr.	Test.

Chickasaw County

153	Boyd	Co-op	Wm. Denner, Secretary	Boyd	J. M. Zebrod	Separator	Test.
154	Alma Vista	Co-op	J. Westenberger, Secretary	Alma Vista	Otto Buhner	Separator	Test.
155	Devon	Co-op	Alfred Lamo	Devon	Mr. Opper	Separator	Test.
156	Deerfield	Co-op		Deerfield	F. W. Sargent	Separator	Test.
157	Fredericksburg	Co-op		Fredericksburg	H. E. Forrester	Separator	Test.
158	Ionis	Co-op		Ionis	R. S. Ogley	Gath. Cr.	Oil Test.
159	Jerico	Co-op		Jerico	John Finnigan	S. & G. O.	Test.
160	Lawler	Co-op			Fred A. Zigler	Separator	Test.
161	Little Turkey	St. ck.			Allen Gulbranson	S. & G. O.	Test.
162	New Hampton	Indiv.		Mass.	S. Peterson	S. & G. O.	Test.
163	New Hampton	Indiv.		Mass.		S. & G. O.	Test.
164	New Hampton	Indiv.		Mass.		S. & G. O.	Test.
165	Nashua	Co-op		Nashua	J. W. Ogley	Gath. Cr.	Oil Test.
166	Nashua	Indiv.		DeKalb, Ill.	W. H. Miller	Gath. Cr.	Oil Test.
167	N Washington	Co-op			Fred Schredder	Separator	Test.
168	Republie	Indiv.	Charles Turler & Co.		G. F. Langquist	Gath. Cr.	Oil Test.
169	Saunder	Co-op	Wm. Sanderson, Sec.		Sam Binn	Separator	Test.
170	Williamstown	Co-op	H. S. Kersson, Secretary	Fredericksburg		Separator	Test.

Clay County

171	Dickens	Co-op	Wm.	Dickens	A. L. Remington	Separator	Test.
172	Fosteria	Stock	B. D.	Fosteria	F. Riley	S. & G. O.	Test.
173	Royal	Indiv.	Prof.	Ames	B. R. Churchill	S. & G. O.	Test.
174	Langdon	Co-op	H. R.	Langdon	Charles Johnson	Separator	Test.
175	Spencer	Indiv.	J. W.	Spencer	Frank L. Repke	S. & G. O.	Test.
176	Webb	Indiv.	J. A.	Webb	J. A. Reid	Hand Sep	Test.

Clayton County

177	Elkader	Co-op	G. Gregerson	Elgin	H. L. Michaelson	S. & G. O.	Oil Test.
178	Elkader	Stock	H. R. Carpenter	Elkader	Harvey Clough	Hand Sep	Test.
179	Edgewood	Indiv.	H. F. Beyer	Edgewood	Ed. Whipple	S. & G. O.	Test.
180	Elkport	Indiv.	H. F. Beyer	Edgewood		S. & G. O.	Test.
181	Farmerburg	Co-op	John Johnson, Secretary	St. Olaf R. I.	I. Henderschott	Hand Sep	Test.
182	Garnaville	Co-op	H. Kuhlman, Secretary	Garnaville	O. Schumacher	Gath. Cr.	Test.
183	Luana	Co-op	John H. Hanson	Luana	James A. Barker	S. & G. O.	Test.
184	Littleport	Indiv.	H. F. Beyer	Edgewood	Don Whipple	S. & G. O.	Test.
185	Communia	Stock	H. R. Carpenter	Elkader	Peter Klink	S. & G. O.	Test.
186	Monona	Stock	H. R.	Elkader	G. M. Miller	Hand Sep	Test.
187	Osterdock	Stock	H. K.	Elkader	A. H. Peacock	Separator	Test.
188	Mederville	Indiv.	Wm.	Mederville	Wm. Brinkhous	S. & G. O.	Test.
189	McGregor	Stock	M. V.	McGregor	Geo. Haffron	Hand Sep	Test.
190	Strawberry P.	Co-op	O. O.	Strawberry Pt.	H. J. Evans	Separator	Test.
191	St. Olaf	Co-op	G. R.	St. Olaf R. I.	J. Friaby	Gath. Cr.	Test.
192	Volga City	Co-op	Wm.	Volga City	Joe Jones	S. & G. O.	Test.
193	Watson	Co-op	John	McGregor	F. A. Flete	Hand Sep	Test.
194	Gunder	Co-op	F. F.	Olermont		Separator	Test.

CREAMERY LIST—CONTINUED.

Office number	Location.	Name of Creamery.	How operated.	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager.	Name of Butter Maker.	Separator or method of creaming milk.	Method of re-creating milk.
195	East Elkhart	Dubuque Butter & Milk Co. (s)	Stock.	G. O. Hopkins, Secretary..	Oregon, Ill .....	.....	Hand Sep	Test.
196	Guttenburg	Dubuque Butter & Milk Co. (s)	Stock.	G. O. Hopkins, Secretary..	Oregon, Ill .....	.....	Hand Sep	Test.
Clinton County—								
197	Delmar .....	.....	Indiv.	John Newman Company...	Elgin, Ill	L. J. Spohn	S. & G. C.	Test.
198	Elwood .....	.....	Indiv.	John Newman Company...	Elgin, Ill	Frank Leinbaugh	S. & G. C.	Test.
199	Lost Nation .....	.....	Co-op.	Rilden Kemmer, Secretary	Lost Nation	Grant Adamson	S. & G. C.	Test.
200	Petersville .....	.....	Indiv.	John Newman Company...	Elgin, Ill	J. G. Wheelock	S. & G. C.	Test.
201	Teeds Grove .....	.....	Indiv.	John Newman Company...	Elgin, Ill	A. Anrex	S. & G. C.	Test.
202	Wilton .....	.....	Indiv.	John Newman Company...	Elgin, Ill	O. E. Berst	S. & G. C.	Test.
203	Wheatland .....	.....	Co-op.	Emil Lohmann, Secretary	Wheatland	A. E. Banta	S. & G. C.	Test.
204	Toronto .....	.....	Co-op.	Edward Hart, Jr	Toronto	W. L. Sloan	Separator	Test.
205	Lost Nation .....	.....	Indiv.	Andrew Nimmo, Manager.	Monticello .....	.....	S. & G. C.	Test.
206	Lost Nation .....	.....	Indiv.	Andrew Nimmo, Manager.	Monticello .....	.....	S. & G. C.	Test.
207	Smithtown .....	.....	Indiv.	Andrew Nimmo, Manager.	Monticello .....	.....	S. & G. C.	Test.
208	Browns .....	.....	Indiv.	John Newman Company...	Elgin, Ill .....	.....	S. & G. C.	Test.
Crawford County—								
209	Charter Oak	Charter Oak Creamery	Indiv.	John O. Keller, Proprietor.	Charter Oak	Will Craft	Hand Sep	Test.
210	Lenison	Fairmont Creamery company.	Stock.	E. T. Rector, Manager	Fairmont, Neb	A. F. Durkee	Hand Sep	Test.
Dallas County—								
211	Dexter	Farmers' Co-op. Creamery Ass'n	Co-op.	James L. Keechle, Sec.	Dexter	Jan. L. Keechle	S. & G. C.	Test.
212	Perry	J. Moody & Sons' Creamery.	Indiv.	J. Moody & Son	Perry	C. Sorenson	S. & G. C.	Test.
213	Woodward	Woodward Creamery	Indiv.	H. P. Calenkey, Proprietor	Woodward	A. B. Calenkey	S. & G. C.	Test.
214	Dallas Center	Beatrice Creamery company (s)	Stock.	.....	.....	.....	Hand Sep	Test.
215	Minerva	Beatrice Creamery company (s)	Stock.	.....	.....	.....	Hand Sep	Test.
216	Panther	Beatrice Creamery company (s)	Stock.	.....	.....	.....	Hand Sep	Test.
217	Van Meter	Beatrice Creamery company (s)	Stock.	.....	.....	.....	Hand Sep	Test.
218	Redfield	Smith Produce company	Stock.	.....	.....	.....	Hand Sep	Test.
219	Blough	Iowa Dairy company (s)	Stock.	W. H. Hall, Manager	Yale .....	.....	Separator	Test.

CREAMERY LIST—CONTINUED.

Office record number.	Location.	Name of Creamery.	How operated.	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager.	Name of Butter Maker.	Separator or Gatherer of cream.	Method of re-ooling milk.
<i>Dubuque County—</i>								
260	Balltown		Co-op.	B.			B. & G. O. Separator	Test.
261	Cascade		Co-op.	.....			Separator	Test.
262	Cascade		Co-op.	.....			Separator	Test.
263	Dyeraville		Co-op.	.....			Separator	Test.
264	Dyeraville		Stock.	.....			Separator	Test.
265	Epworth		Co-op.	.....			Separator	Test.
266	Fillmore		Co-op.	.....			Separator	Test.
267	Farley		Indiv.	.....			B. & G. O. Separator	Test.
268	Farley		Co-op.	.....			B. & G. O. Separator	Test.
269	Onell		Co-op.	.....			Separator	Test.
270	Lat ners		Indiv.	.....			Separator	Test.
271	Luxemburg		Co-op.	.....			Separator	Test.
272	New Vienna		Stock.	.....			Separator	Test.
273	Richardsville		Stock.	.....			Separator	Test.
274	Sherrill		Co-op.	.....			Separator	Test.
275	Sherrill		Co-op.	.....			Separator	Test.
276	Worthington		Indiv.	.....			Separator	Test.
277	Worthington		Indiv.	.....			Separator	Test.
278	Holy Cross		Co-op.	.....			Separator	Test.
279	Dubuque		Indiv.	.....			Hand Sep.	Test.
280	Dubuque		Indiv.	.....			B. & G. O. Separator	Test.
281	Dubuque		Stock.	.....			Hand Sep.	Test.
<i>Emmet County—</i>								
282	Armstrong		Co-op.	Peter J. A.			B. & G. O. Separator	Test.
283	Calherville		Stock.	J. A.			B. & G. O. Separator	Test.
284	Emmetsburg		Stock.	P. A.			Separator	Test.
285	Huntington		Co-op.	L. L.			B. & G. O. Separator	Test.
286	Bioprig		Co-op.	John			B. & G. O. Separator	Test.
287	Kingsted	Denmark Creamery Co.	Co-op.	H. J.			Separator	Test.
288	Kingsted	Foraythe Creamery	Co-op.	H. A.			Separator	Test.
289	Wallingford	Wallingford Creamery Co.	Stock.	O. O.			B. & G. O. Separator	Test.

Fayette County											
290	Arlington	Brush Creek Farmers Creamery	Stock					Arlington	Separator	Test.	
291	Clermont	Clermont Valley Creamery Co	Co-op.					Clermont	S. & G. C	Test.	
292	Elgin	Elgin Farmers' Dairy company	Co-op.					Elgin	Hand Sep	Test.	
293	Fayette	Fayette Creamery	Indiv					Edgewood	S. & G. C	Test.	
294	Hawkeye	Hawkeye Creamery company	Co-op.					West Union	Separator	Test.	
295	Maynard	Harlan Creamery company	Co-op.					Maynard	Test.		
296	Minkler	Oran Creamery company	Co-op.					Minkler	Separ tor	Hund.	
297	Oelwein		Co-op.					Oelwein	Separator	Test.	
298	Oelwein		Co-op.	J. E. Holmes				Oelwein	Separator	Test.	
299	Randallia		Co-op.	A. E. Fridley, Secretary				Randallia	S. & G. C	Test.	
300	Sumner		St ck	John J. Mihn, Secretary				Sumner	Separator	Hund.	
301	St. Lucas		Co-op.	F. B. Coleman, Secretary				F. B. Atkinson	Separator	Test.	
302	Westgate		Co-op.	F. J. Sch. oeder, Proprietor				Westgate	Separator	Test.	
303	Wadena		Indiv.	Boe & Nelson, Proprietors				Wadena	Hand Sep	Test.	
304	West Union		Indiv					Calmar	S. & G. C	Test.	
305	Waucoma		Co-op	J. E. Scanlan, Secretary				Waucoma	S. & G. C	Test.	
306	Stanley		Co-op.	W. A. Sherman				Stanley	S. & G. C	Test.	
307	Alpha		Co-op.	F. J. McIntire, Secretary				Alpha	Separator	Test.	
Floyd County											
308	Powersville		Indiv	Chas. Gurler & Company	DeKalb, Ill.			DeKalb, Ill.	Gath. Cr.	Oil Test	
309	Rockford	Ass'n.	Co-op.	G. A. Hillman, Secretary	Bookford			Bookford	Gath. Cr.	Oil Test	
310	Charles City	Co.	Co-op.	M. A. Hirsch, Secretary	Charles City			Charles City	Gath. Cr.	Oil Test	
311	Charles City		Indiv	J. J. Brunner	Charles City			Charles City	Gath. Cr.	Oil Test	
312	Charles City		Indiv	J. J. Brunner	Charles City			Charles City	Gath. Cr.	Oil Test	
Franklin County											
313	Alexander		Indiv	C. H. Gurler	DeKalb, Ill			DeKalb, Ill	S. & G. C.	Test.	
314	Ackley		Indiv	Martin & Johnson	Ackley			Ackley	Separator	Test.	
315	Ooulter	Co	Co-op.	George Dohrman, Sec.	Hampton			Hampton	Gath. Or.	Test.	
316	Chapin		Indiv	C. H. Gurler	DeKalb, Ill			DeKalb, Ill	Gath. Or.	Test.	
317	Dows	Co.	Co-op.	C. A. Nicholson	Dows			Dows	S. & G. C.	Test.	
318	Hampton		Indiv	J. Juhl	Hampton			Hampton	Gath. Or.	Oil test.	
319	Iowa Falls		Stock.	J. J. Hending, Secretary	Iowa Falls, R. I.			Iowa Falls, R. I.	Separator	Test.	
320	Lakimer	Co.	Co-op	A. W. Meyer, Secretary	Lakimer			Lakimer	Gath. Or.	Test.	
321	Lee Center Twp.		Co-op.	P. H. Schaub, Secretary	Alden			Alden	Separator	Test.	
	Ackley		Ind.	Martin & Johnson	Ackley			Ackley	Separator	Test.	
Greene County											
322	Grand Junction	Grand Juno Co-op. Crm. Assn	Co-op.	J. Whalen	Grand Junction			Grand Junction	Separator	Test.	
323	Scranton	Scranton Creamery	Indiv	J. O. Hayward	Scranton			Scranton	Separator	Test.	

CREAMERY LIST—CONTINUED.

Office record number.	Location.	Name of Creamery.	How operated.	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager.	Name of Butter Maker.	Separator or Gath. Or.	Method of re-ceiving milk.
Grundy County—								
824	Aplington.....		Co-op.		Aplington.....	W. I. Dillinger.	S. & G. O.	Test.
825	Ackley.....		Indiv.		Ackley.....	Henry Schnitger.	Separator	Test.
826	Dike.....		Co-op.		Dike.....	A. Kindberg.	S. & G. O.	Test.
827	Fredaville.....		Co-op.		Cedar Falls, R. 2.	Soren Jorgenson.	Separator	Test.
828	Stout.....		Co-op.		Stout.....	T. R. Bilger.	Separator	Test.
829	Wellsburg.....		Co-op.		Wellsburg.....	C. A. Murray..	S. & G. O.	Test.
Guthrie County—								
830	Bayard.....	Bayard Creamery.....	Co-op.	M. J. Hallaman, Secretary.	Bayard.....	L. R. Winn.....	Gath. Or.	Test.
831	Casey.....		Co-op.	O. L. Knox, Secretary.	Casey.....	O. H. Matravere	S. & G. O.	Test.
832	Guthrie Center.....		Co-op.	J. A. McLaughlin, Sec.	Guthrie Center.	J. M. Taft.....	S. & G. O.	Test.
833	Glendon.....		Co-op.	J. C. Hanes, Secretary.	Glendon.....	J. Howard.....	Separator	Test.
834	Menlo.....		Stock.	A. C. Curtis, Secretary.	Stuart.....	H. H. Colbert..	S. & G. O.	Test.
835	Panora.....		Indiv.	E. F. Wilcox.....	Panora.....	John Taft.....	Separator	Test.
836	Stuart.....		Stock.	O. M. Cady, Secretary.	Stuart.....	R. Cochran..	S. & G. O.	Test.
837	Yale.....		Stock.	W. H. Hall, Manager.	Yale.....	D. C. Rathlow..	Separator	Test.
838	Dale.....		Co-op.			J. L. Clark.....	S. & G. O.	Test.
839	North Branch.....		Stock.	O. E. Spangler, Secretary.	North Branch..		Separator	Test.
840	Wichita.....		Co-op.				S. & G. O.	Test.
Hamilton County—								
841	Blairsburg.....		Indiv.	P. B. Saxer.....	Blairsburg.....	P. B. Saxer.....	S. & G. O.	Test.
842	Ellsworth.....	Asen.....	Co-op.	S. Stenberg, Secretary.	Ellsworth.....	M. J. Manager.	Separator	Test.
843	Williams.....	Asen (s).....	Co-op.	S. Stenberg, Secretary.	Ellsworth.....		Separator	Test.
844	Radcliffe.....	Asen (s).....	Co-op.	S. Stenberg, Secretary.	Ellsworth.....		Separator	Test.
845	Jewel Junction.....		Indiv.	Gronbeck & Morch.	Jewel Junction.	Chris Morch.....	Separator	Test.
846	Jewel.....		Indiv.	Gronbeck & Morch.	Jewel Junction.		Separator	Test.
847	Randall.....	inery.....	Co-op.	H. N. Miller, Secretary.	Randall.....	H. N. Miller.....	Separator	Test.
848	Stratford.....		Indiv.	S. O. Rice, Proprietor.	Stratford.....	G. F. Hummel..	S. & G. O.	Test.
849	Stanhope.....	company.....	Indiv.	E. C. Brewer, Proprietor.	Stanhope.....	G. E. Jackson..	Separator	Test.

Hancock County—									
350	Britt	Britt Co-op. Creamery Co	Co-op.	Britt	H. L. McNary	S. & G. O	Test.		
351	Duncombe	Britt Co-op. Creamery Co. (s)	Co-op.	Britt	L. A. Nelson	S. & G. O	Test.		
352	Crystal Lake	Crystal Creamery	Co-op.	Crystal Lake	Guy Thomas	Gath. Or	Test.		
353	Goodell	Goodell Creamery	Co-op.	Goodell	H. C. Schulte	Gath. Or	Test.		
354	Garner		Indiv.	Garner	C. R. Conway	Separator	Test.		
355	Garner		Co-op.	Kanawha	B. O. Brownlee	Hand Sep	Test.		
356	Kanawha	pany.	Co-op.	Klemme	G. N. Fjetland	Gath. Or	Test.		
357	Klemme		Co-op.	Woden	L. O. Peterson	S. & G. O	Test.		
358	Woden		Indiv.	Forest City		Separator	Test.		
359	Forest City	Assn(s)	Co-op.						
Hardin County—									
360	Alden	Alden Co-op. Creamery	Co-op.	Alden	N. H. Trimble	Separator	Test.		
361	Buckeye	Cottage Creamery company	Stock	Buckeye	R. Rogers	S. & G. O	Test.		
362	Cleves	Cleves Creamery	Indiv.	Ackley	A. D. Gimer	Separator	Test.		
363	Eldora	Eldora Creamery	Indiv.	Eldora	O. H. Werder	S. & G. C	Test.		
364	Hubbard	Spring Branch Co-op. Creamery	Co-op.	Hubbard	D. Mohler	Separator	Test.		
365	Hubbard	Hubbard Co-op. Creamery	Co-op.	Hubbard	J. W. Mohler	S. & G. O	Test.		
366	Iowa Falls	Iowa Falls Creamery company.	Co-op.	Iowa Falls	J. J. Ross	S. & G. O	Test.		
367	New Providence	New Providence Creamery Co	Stock	New Providence	Chas. N. Hart	S. & G. O	Test.		
368	Garden City	Concord & Scott Co-op. Crm. Co	Co-op.	Garden City	H. R. Alcorn	Separator	Test.		
369	Garden Clay	Concord & Scott Co-op. Cr. Co. (s)	Co-op.	Garden City		Separator	Test.		
370	Radcliffe	Concord & Scott Co-op. Cr. Co. (s)	Co-op.	Ackley	Fred Flatler	Separator	Test.		
371	Robinson	Robinson Creamery	Indiv.	Steamboat Rock	Walter Peterson	Separator	Test.		
372	Steamboat Rock	Steamboat Rock Creamery	Co-op.	Union	O. W. Dillon	S. & G. O	Test.		
373	Union	Union Creamery company	Co-op.						
Harrison County—									
374	Logan	Crisp Creamery	Co-op.	Logan	N. Danielson	Separator	Test.		
375	Magnolia	Magnolia Creamery company	Co-op.	Logan, R. S.	H. D. Wendt	Separator	Test.		
Howard County—									
376	Cresco		Indiv.	Cresco	C. W. Pierce	S. & G. O	Test.		
377	Chester	Lein	Co-op.	Chester	E. A. Hoopman	Gath. Or	(M) Test		
378	Elma		Co-op.	Elms	John P. Whalen	S. & G. O	Test.		
379	Elma		Co-op.	Maple Leaf	A. J. Herman	Separator	Test.		
380	Louisa		Stock	Elader	J. F. Fisher	S. & G. O	Test.		
381	Lime Springs		Stock	Elkader	John Foss	Gath. Or	Oil Test		
382	Procton		Co-op.	Procton	J. A. Postal	Gath. Or	Oil Test		
383	Schley		Indiv.	Schley	James M. Ondrack	S. & G. O	Test.		
384	Saratoga		Stock	Elkader	Henry Foss	Gath. Or	Test.		

CREAMERY LIST—CONTINUED.

Office record number.	Location.	How operated.	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager.	Name of Butter Maker.	Separator or Buttered cream.	Method of receiving milk.
Humboldt County							
385	Arnold	Co-op.	S. S. Barley	Arnold	Ira O'Neill	S. & G. C. Separator	Test.
386	Bradgate	Co-op.		Bradgate	W. Evans	S. & G. C. Separator	Test.
387	Bode	Co-op.		Bode	M. H. Rawson	S. & G. C. Separator	Test.
388	Goldfield	Co-op.		Goldfield	L. M. Tysor	S. & G. C. Separator	Test.
389	Hardy	Co-op.		Hardy	E. K. Junkins	S. & G. C. Separator	Test.
390	Humboldt	Co-op.		Humboldt	L. D. Hill	S. & G. C. Separator	Test.
391	Otosen	Co-op.		Otosen	Iver Shuren	S. & G. C. Separator	Test.
392	Pioneer	ndiv.		Pioneer	K. Stolberg	S. & G. C. Separator	Test.
393	Renwick	Co-op.		Renwick	C. A. Nurrell	Comb. Cr.	Test.
394	Rutland	Co-op.		Rutland	T. M. Boglum	S. & G. C. Separator	Test.
395	Thor	Stock.		Thor	Ben Lanning	S. & G. C. Separator	Test.
Ida County—							
396	Arthur	ndiv.	M. J. Concklin, Proprietor. A. W. Hubbard, Proprietor.	Arthur	M. J. Concklin ..	S. & G. C. Separator	Test.
397	Holstein	ndiv.		Correctionville ..	Arthur R. Meen ..	Hand Sep.	Test.
Iowa County—							
398	Conroy	Co-op.	F. ..	Conroy	W. H. Woodcock ..	Separator	Test.
399	Ladora	Co-op.		Williamsburg R. 4 ..	Geo. Hyrne	S. & G. C. Separator	Test.
400	Ladora	Co-op.		Ladora	John Balfinger ..	S. & G. C. Separator	Test.
401	Marango	Co-op.		Marango	W. F. Ried	S. & G. C. Separator	Test.
402	Victor	Co-op.		Victor	Geo. W. Balfinger ..	S. & G. C. Separator	Test.
403	Williamsburg ..	Co-op.		Williamsburg ..	E. E. Montgomery ..	Separator	Test.
404	Williamsburg ..	Co-op.		Williamsburg ..	Williamsburg ..	Separator	Test.
405	Williamsburg ..	Co-op.		Williamsburg R. 1 ..	T. Winter	Separator	Test.
406	North English ..	Stock.		Ottumwa .....	.....	S. & G. C. Separator	Test.
Jackson County							
407	Fulton	Co-op.	John Reide Secretary J. P. Younger	Fulton	Howard Conlon ..	Separator	Test.
408	Monmouth	ndiv.		40 Barbers R. Chicago ..	.....	S. & G. C. Separator	Test.
409	Maquoketa	Co-op.		Maquoketa	C. Post	S. & G. C. Separator	Test.

410	Miles	Spring Brook Creamery	Indiv.	John Newman Company.	Elgin, Ill.	A. J. Spohn.	Separator.	Test.
411	Zwingle		Indiv.	Geo. Laible, Proprietor.	Zwingle	J. T. Mogle.	S. & G. O.	Test.
412	Preston		Co-op.	Samuel McNeil, Secretary.	Preston	John Smith.	Separator.	Test.
413	Preston		Co-op.	Samuel McNeil, Secretary.	Preston		Separator.	Test.
414	Preston		Indiv.	John Newman Company.	Elgin, Ill.	A. J. Nega.	Separator.	Test.
415	Springville		Indiv.	John Newman Company.	Elgin, Ill.		Separator.	Test.
416	Union Center		Indiv.	John Newman Company.	Elgin, Ill.		Separator.	Test.
417	Lamotte		Indiv.	A. Hoffman, Proprietor.	Lamotte	J. M. Hoffman.	S. & G. O.	Test.
418	St. Donatus		Indiv.	Kreder & Dupont.	St. Donatus.	P. J. Dupont.	S. & G. O.	Test.
419	Baldwin		Indiv.	Andrew Nimmo.	Monticello.		Separator.	Test.
420	Maquoketa		Indiv.	E. D. Hansen.	Maquoketa.	O. C. Clifton.	Hand Sep.	Test.
421	Lamotte		Indiv.	B. Nemmers.	Lamotte.	J. C. Nemmers.	S. & G. O.	Test.
422	Maquoketa		Indiv.	John Newman Company.	Elgin, Ill.	J. C. Danielson.	S. & G. O.	Test.
<i>Jasper County</i>								
423	Baxter	Baxter Dairy company	Co-op.	H. Krump, Jr., Secretary.	Baxter	H. C. Schottler.	Separator.	Test.
424	Newton	Newton Co-op Creamery	Co-op.	D. A. Bohne, Secretary.	Newton	A. B. Olson.	Gath. Cr.	Test.
425	Newburg	Newburg Creamery company	Stock.	D. G. Alden, Secretary.	Newburg	H. E. Webb.	S. & G. O.	Test.
<i>Jefferson County</i>								
426	Fairfield	Fairfield Creamery	Co-op.	Jacob Roth, Secretary.	Fairfield	George Y. Ross.	S. & G. O.	Test.
427	Four Corners	Four Corners Co-op. Crm. Co.	Co-op.	C. L. Schuber, Secretary.	Lockridge, R. I.	C. L. Schuber.	Separator.	Test.
428	Salina	Salina Creamery	Co-op.	J. Schillerstrom.	Salina	H. S. Wood.	Separator.	Test.
429	Glendale	Yorkshire Creamery Co. (s) ..	Stock.	B. N. Morrell, Secretary.	Ottumwa		Separator.	Test.
<i>Johnson County</i>								
430	Oxford	Oxford Creamery	Indiv.	Adam Floerelinger	Oxford		S. & G. O.	Test.
<i>Jones County</i>								
431	Anamosa	Fawn Creek Creamery	Indiv.		Anamosa	W. D. Bomine.	S. & G. O.	Test.
432	Monticello	Clover Leaf Creamery Co.	Co-op.		Monticello	P. A. Stockwell.	Separator.	Test.
433	Amber	Amber Creamery	Indiv.					
434	Center Junction	Center Junction Creamery	Indiv.		Chicago	H. W. Belka.	Separator.	Test.
435	Hale		Stock.		Chicago	A. E. Robertson.	S. & G. O.	Test.
436	Langworthy	Creamery.	Co-op.		Hale	W. H. Brownell.	Separator.	Test.
437	Martelle		Indiv.		Langworthy	J. H. Batchelder.	Separator.	Test.
438	Monticello		Co-op.		Martelle	S. Batchelder.	Separator.	Test.
439	Monticello		Indiv.		Monticello	L. S. Kleckner.	S. & G. O.	Test.
440	Monticello		Indiv.		Monticello	Henry J. Rebert.	S. & G. O.	Test.
441	Monticello		Indiv.		Monticello		S. & G. O.	Test.
442	Monticello		Indiv.		Monticello		S. & G. O.	Test.
443	Monticello		Indiv.		Monticello		S. & G. O.	Test.
444	Monticello		Indiv.		Monticello		S. & G. O.	Test.
445	Monticello		Indiv.		Monticello		S. & G. O.	Test.

CREAMERY LIST--CONTINUED.

Linn County—									
478	Anamosa	Indiv.	Indiv.	John Iehl, Secretary	Anamosa	Vint Smith	Separator	Hand.	
479	Central City	Stock	Central City		Central City	R. R. Richardson	S. & G. C.	Test.	
480	Central City	Indiv.	Indiv.		Central City	W. W. Ross	S. & G. C.	Hand.	
481	Central City	Indiv.	Indiv.		Central City	St. Elmo Wright	S. & G. C.	Test.	
482	Oggon	Indiv.	Indiv.		Oggon	J. J. McAreavy	Separator	Test.	
483	Oggon	Co-op.	Co-op.		Oggon	Fred Lehman	Separator	Test.	
484	Cedar Rapids	Stock	Stock		Cedar Rapids		Separator	Test.	
485	Center Point	Indiv.	Indiv.		Center Point	O. M. Fisher	S. & G. C.	Test.	
486	Ely	Co-op.	Co-op.		Ely	Charles Trozell	Separator	Test.	
487	Western	Co-op.	Co-op.		Ely		Separator	Test.	
488	Anamosa	Indiv.	Indiv.		Anamosa	Port Wilkinson	Separator	Test.	
489	Rogers	Stock	Stock		Central City	A. C. Minchert	S. & G. C.	Test.	
490	Springville	Indiv.	Indiv.		Springville	O. E. Hatchelder	S. & G. C.	Test.	
491	Troy Mills	Indiv.	Indiv.		Troy Mills	J. M. Tupper	S. & G. C.	Test.	
492	Troy	Co-op.	Co-op.	John Iehl, Secretary	Walker	G. B. Batchelder	Separator	Hand.	
493	Waukegan	Indiv.	Indiv.		Walker		Separator	Test.	
494	Walker	Indiv.	Indiv.	H. J. Nietert	Walker	B. W. Laird	S. & G. C.	Test.	
495	Viola	Indiv.	Indiv.	O. N. Pollock	Viola	O. N. Pollock	Separator	Test.	
496	Prairieburg	Indiv.	Indiv.	Andrew Nimmo	Monticello		S. & G. C.	Test.	
497	Cedar Rapids	Co	Indiv.	F. W. Boyer	Cedar Rapids		Hand Sep	Test.	
498	Parake	Indiv.	Indiv.	Batchelder Bros.	Springville		S. & G. C.	Test.	
Lucas County—									
499	Derby	Indiv.	Old Colony Creamery (s)	T. G. Hyde, Manager	Humeston		Separator	Test.	
Lyon County—									
500	George	Indiv.	George Creamery	W. P. Jennings	George	J. E. Vogel	S. & G. C.	Test.	
501	Little Rock	Co-op.	Little Rock Co-op. Crm. Assn.	R. E. Stenzel, Secretary	Little Rock	O. W. Dabbs	S. & G. C.	Test.	
Madison County—									
502	Marburg	Indiv.	Hebron Creamery (s)	D. F. Hammers	Hebron		S. & G. C.	Test.	
Mahaska County—									
503	New Sharon	Stock	New Sharon Creamery Co	W. J. Nicholson, Secretary	New Sharon	Henry Martin	Hand Sep	Test.	
Marion County—									
504	Pella	Indiv.	Pella Creamery	J. J. Bonquet	Pella	T. Smorenberg	Gath. Or.	Test.	
505	Dallas	Stock	Beatrice Creamery Co. (s)	Beatrice Creamery Co	Des Moines		Separator	Test.	

CREAMERY LIST—CONTINUED.

Office record number.	Location.	Name of Creamery.	How operated.	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager.	Name of Butter Maker.	Separator or Gathered cream.	Method of testing milk.
Marshall County—								
506	Clemons	Minerva Valley Creamery Co. ..	Co-op.	A. A. Bartine, Secretary.	Clemons	G. R. Jackman	Gath. Cr.	Oil Test
507	Dunbar	Dunbar Creamery company ..	Co-op.	O. J. Olsen, Secretary	Dunbar	Wm. Helgeson.	Separator	Test.
508	Liscomb	Liscomb Cheese company ..	Stock.	Thomas E. Culp	Liscomb	Thos. E. Culp ..	Gath. Cr.	Test.
509	State Center	State Center Far. Cr. Assn.	Co-op.	O. Hansen ..	State Center	N. E. Laurensen.	S. & G. O	Oil Test
Mills County—								
510	Mineola	Waterloo Creamery Co. (s)	Stock.	Leroy Corlis.	Council Bluffs.	.....	Separator	Test.
511	Silver City.	Waterloo Creamery Co. (s)	Stock.	Leroy Corlis.	Council Bluffs.	.....	Separator	Test.
512	York Township.	Waterloo Creamery Co. (s)	Stock.	Leroy Corlis.	Council Bluffs.	.....	Separator	Test.
Mitchell County—								
513	David	Co	Co op	F. O.	David	V. Fairbrother.	Gath. Cr.	Test.
514	Little Cedar.	1.	Co-op.	H. E.	Little Cedar	Chas. Woodruff	S. & G. O	Test.
515	Owaga .....	..	Co-op.	J. F.	Rudd, R. F. D.	S. Klemmestad ..	Gath. Cr.	Oil test.
516	Orchard ..	..	Co-op.	F. J.	Orchard	M. M. Blanden.	Gath. Cr.	Oil test.
517	Riceville .....	..	Co-op.	J. J.	Riceville ..	A. B. Groves ..	Gath. Cr.	Test.
518	Stacyville .....	..	Indiv.	J. J.	Stacyville ..	J. B. Spensley ..	S. & G. O	Test.
519	St. Ansgar	Co	Co-op.	L. L.	St. Ansgar ..	B. C. Iliff	Gath. Cr.	Test.
520	Toeterville .....	..	Co-op.	D. D.	Toeterville ..	A. N. Holland ..	Hand Sep	Test.
521	New Haven .....	..	Co-op.	J. J.	New Haven ..	D. O. Thomas ..	Gath. Cr.	Oil test.
522	Usage .....	..	Co-op.	J. J.	Mitchell	Geo. Helter	Gath. Cr.	Test.
Monona County—								
523	Moorhead	Moorhead Creamery	Indiv.	P. D. Nelson	Moorhead	P. D. Nelson	S. & G. O.	Test.
Monroe County—								
524	Albia	Albia Creamery	Indiv.	S. D. Thompson	Albia	S. D. Thompson	S. & G. O.	Test.

1904]	Mascoutine County	Indiv	Geo. W. Kelley	Wilton Junction	E. B. Hesson	Gath. Cr. Separator	Test.
526	Wilton,	Indiv	Geo. W. Kelley	Wilton Junction	E. B. Hesson	Gath. Cr. Separator	Test.
527	West Liberty	Indiv	Geo. W. Kelley	Wilton Junction	E. B. Hesson	Gath. Cr. Separator	Test.
O'Brien County							
528	Germanatown, ..	Stock	Fred Hockman	Germanatown	Wm. Gehrla	Separator	Test.
529	Harley	Indiv	A. D. Roseboom	Harley	A. D. Roseboom	Gath. Cr. Separator	Test.
530	Paulina	Stock	W. Strampe, Secretary	Paulina	W. S. Strampe	Separator	Test.
531	Princeton	Indiv	A. H. Hubbard	Correctionville	G. A. Bristol	Hand Sep	Test.
532	Sheldon	Indiv	D. A. Miller, Proprietor	Sheldon	F. L. Francisco	S. & G. O.	Test.
Osceola County							
533	Ashton	Indiv	Kramer & Davis, Prop	Ashton	O. W. Davis	S. & G. O.	Test.
534	Sibley	Indiv	C. A. Smith	Sibley	Dick Osgrove	Hand Sep	Test.
Page County							
535	Clarinda	Stock	W. T. S. White, Manager	Clarinda	J. C. Hall	Hand Sep	Test.
Palo Alto County							
536	Ayrshire	Co-op	O. H. Cookinham	Ayrshire	F. W. Shellman	Separator	Test.
537	Cylinder	Co-op	Theo. DeMouth, Secretary	Cylinder	E. P. Conway	Separator	Test.
538	Curlew	Co-op	R. H. Glenn	Curlew	N. H. Knudsen	Separator	Test.
539	Emmetsburg	Stock	Lewis S. Schmeier	Emmetsburg	W. D. Kueker	Separator	Test.
540	Fairville	Stock	Lewis S. Schmeier	Cylinder, R. 2	J. N. Bruck	Separator	Test.
541	Graettinger	Co-op	Lewis S. Schmeier	Emmetsburg R. 3	W. W. Bond	S. & G. O.	Test.
542	Graettinger	Co-op	Lewis S. Schmeier	Graettinger	J. Finnell	S. & G. O.	Test.
543	Mallard	Co-op	Lewis S. Schmeier	Mallard	E. Chadwick	S. & G. O.	Test.
544	Osgood	Co-op	Lewis S. Schmeier	Emmetsburg	W. A. Thayer	S. & G. O.	Test.
545	Graettinger	Co-op	Lewis S. Schmeier	Ruthven	W. H. Anderson	Separator	Test.
546	Ruthven	Co-op	Lewis S. Schmeier	Ruthven	Emil Anderson	S. & G. O.	Test.
547	Rodman	Co-op	Lewis S. Schmeier	Rodman	T. A. Clarke	S. & G. O.	Test.
548	West Bend	Co-op	Lewis S. Schmeier	West Bend	Jas P. Larsen	S. & G. O.	Test.
549	West Bend	Co-op	Lewis S. Schmeier	West Bend	Jas P. Larsen	S. & G. O.	Test.
Plymouth County							
550	Kingsley	Indiv	Payne Bros.	Kingsley	Ira Stewart	Gath. Cr. Separator	Test.
551	Mammen	Co-op	H. F. Maut, Secretary	Ireton	J. Kennedy	S. & G. O.	Test.
552	Ruble	Co-op	E. Mann	Ruble	Wm. Anderson	Separator	Test.
553	Merrill	Indiv	Hanford Produce company	Sioux City	Wm. Anderson	Gath. Cr. Separator	Test.
554	LeMars	Indiv	Hanford Produce company	Sioux City	Wm. Anderson	Gath. Cr. Separator	Test.

CREAMERY LIST—CONTINUED.

Olive record number.	Location.	Name of Creamery.	How operated.	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager.	Name of Butter Maker.	Separator or method of creaming milk.	Method of re-creating milk.
Pocahontas County—								
555	Laurens .....	.....	Indiv.	W. & J. G. Hinn, Props	Laurens	F. W. Johnson..	Hand Sep	Test.
556	Palmer .....	.....	Stock.	Geo. Siebels, Sec'y.	Gilmore City ..	Ed Richards....	Separator	Test.
557	Pomeroy .....	.....	Indiv.	Wm. Bretholz ..	Pomeroy	Wm Bretholz..	S. & G. O.	Test.
558	Plover .....	.....	Stock.	H. Fitzg-rd, Manager	Plover	Geo. Heathman..	Hand Sep	Test.
559	Pocahontas .....	.....	Indiv.	W & J. G. Hinn ..	Laurens	R. S. Lybarger..	Hand Sep	Test.
560	Rolfe .....	.....	Indiv.	W. R. Rogers	Rolfe	W. R. Rogers..	S. & G. O.	Test.
Polk County—								
561	Des Moines .....	.....	Stock.	W. J. Stewart	Grimes	R. J. Stewart..	Gath. Cr.	Test.
562	Grimes .....	.....	Stock.	W. J. Stewart	Grimes	S. & G. O.	S. & G. O.	Test.
563	Campbell .....	.....	Stock.	W. J. Stewart	Grimes	S. & G. O.	S. & G. O.	Test.
564	Mitchellville .....	.....	Co op.	A. J. McCleary	Mitchellville ..	O. H. Phillips..	Separator	Test.
565	Des Moines .....	.....	Stock.	B. S. Schermerhorn ..	Des Moines	W. S. Gould ..	S. & G. O.	Test.
566	Des Moines .....	.....	Stock.	Keller J. Ball, Manager	Des Moines	P. G. Hanna ..	Hand Sep	Test.
567	Des Moines .....	.....	Indiv.	MacRae Bros.....	Des Moines .....	.....	Gath. Cr.	Test.
Pottawattamie County—								
568	Avoca .....	.....	Indiv.	P. T. Hansen	Avoca	Ernest Hansen ..	Hand Sep	Test.
569	Walnut .....	.....	Indiv.	P. T. Hansen	Avoca .....	.....	Hand Sep	Test.
570	Council Bluffs ..	.....	Stock.	Leroy Corlies, Secretary	Council Bluffs..	Uhas. Bomberger	Hand Sep	Test.
571	Underwood	company	Stock.	Leroy Corlies, Secretary	Council Bluffs..	.....	Separator	Test.
572	Hancock	company(s)	Indiv.	Mrs. H. C. Brandes, Sec.	Hancock	Wm. Ray	S. & G. O.	Test.
573	Hancock .....	.....	Co-op.	B. Mic enberger	Minden .....	.....	Separator	Hand.
574	Minden .....	.....	Indiv.	N. P. Jorgensen	Minden	John Isaac	Gath. Cr.	Test.
575	Neola .....	.....	Indiv.	E. E. Ryan	Neola .....	.....	Separator	Test.
Poweshiek County—								
576	Deep River	Deep River Creamery	Indiv.	R. W. Hatter	Deep River .....	.....	Gath. Cr.	Oil Test.
577	Guernsey	Springbrook Creamery	Indiv.	John Newman Company.	Elgin, Ill.	O. W. Hloka	S. & G. O.	Test.
578	Fairmont	Springbrook Creamery (s) ..	Indiv.	John Newman Company.	Elgin, Ill. ....	.....	S. & G. O.	Test.

579	Grinnell.....	Grinnell Creamery.....	Indiv.	J. W. Fowler.....	Grinnell.....	M. J. Powers.....	Hand Sep.	Test.
580	Hartwick.....	Springbrook Creamery.....	Indiv.	John Newman Company.....	Elgin, Ill.....	Wm. Thies.....	S. & G. O.	Test.
581	Montezuma.....	Montezuma Co-op. Crm. Ass'n	Co-op.	A. C. Heath, Secretary.....	Montezuma.....	E. B. Coloe.....	S. & G. O.	Test.
Sac County—								
582	Early.....	.....	Indiv.	O. A. Dermo.....	Early.....	C. A. Dermo.....	S. & G. O.	Test.
583	Herring.....	.....	Indiv.	M. R. Wright.....	Herring.....	M. R. Wright.....	S. & G. O.	Test.
584	Lake View.....	.....	Indiv.	S. O. Rice.....	Stratford.....	O. S. Holladay.....	S. & G. O.	Test.
585	Nemaha.....	.....	Co-op.	Clark N. Searle.....	Nemaha.....	A. J. Grotland.....	S. & G. O.	Test.
586	Odebolt.....	.....	Stock.	J. A. Cranston.....	Odebolt.....	Edw. McFarland.....	S. & G. O.	Test.
587	Schaller.....	.....	Indiv.	Perry Rubendall.....	Schaller.....	Perry Rubendall.....	Gath. Cr.	Test.
588	Storm Lake.....	.....	Co-op.	.....	.....	M. P. O'Grady.....	S. & G. O.	Test.
589	Wall Lake.....	Wall Lake Creamery.....	Indiv.	Thomas A. Hearn.....	Wall Lake.....	Thomas Deacon.....	S. & G. O.	Test.
Scott County—								
590	Walcott.....	Amity Creamery.....	Indiv.	Wm. Koberg.....	Walcott, R. I.....	Wm. Koberg.....	Hand Sep.	Test.
591	Long Grove.....	Star Creamery.....	Indiv.	J. B. Marriott.....	Long Grove.....	J. E. Swartz.....	Gath. Cr.	Test.
Shelby County								
592	Corley.....	.....	Co-op.	A. C. Dinesen.....	Avoca.....	W. F. Pettee.....	Hand Sep.	Test.
593	Earling.....	.....	Stock.	Alex. Anderson.....	Earling.....	Alex. Anderson.....	S. & G. O.	Test.
594	Harlan.....	.....	Co-op.	W. M. Obrecht, Secretary.....	Harlan.....	M. Jansen.....	Hand Sep.	Test.
595	Jacksonville.....	.....	Co-op.	R. Rasmussen.....	Harlan.....	P. Nymann.....	Separator	Test.
596	Kirkman.....	.....	Co-op.	J. C. Jensen.....	Kirkman.....	.....	S. & G. O.	Test.
597	Marne.....	.....	Co-op.	P. M. Peterson.....	Marne.....	.....	S. & G. O.	Test.
598	Portsmouth.....	.....	Indiv.	M. A. Sorenson.....	Portsmouth.....	Rodolph Wetne.....	Hand Sep.	Test.
599	Walnut.....	.....	Co-op.	J. D. Lorentsen.....	Walnut.....	.....	Separator	Test.
600	Shelby.....	.....	Stock.	Leroy Corliss.....	Council Bluffs.....	.....	Separator	Test.
Stout County								
601	Alton.....	.....	Indiv.	.....	Alton.....	Geo. R. Mueller.....	Hand Sep.	Test.
602	Granville.....	.....	Stock.	.....	Stout City.....	.....	Separator	Test.
603	Hesper.....	.....	Indiv.	.....	Hesper.....	John J. Marx.....	Hand Sep.	Test.
604	Hawarden.....	.....	Indiv.	.....	Hawarden.....	R. J. Hesler.....	Hand Sep.	Test.
605	Hull.....	.....	Indiv.	.....	Hull.....	E. Den. Herder.....	Hand Sep.	Test.
606	Rock Valley.....	.....	Indiv.	.....	Rock Valley.....	A. G. Paulson.....	Hand Sep.	Test.
Story County—								
607	Ames.....	Iowa State College Creamery.....	State..	G. L. McKay, Manager.....	Ames.....	De La. Sheldon.....	S. & G. O.	Test.
608	Cambridge.....	Farmers Co-op. Creamery Co.	Co-op.	M. F. King, Secretary.....	Cambridge.....	J. F. Burretta.....	S. & G. O.	Test.
609	Oslo.....	Farmers Co-op. Creamery Co.	Co-op.	H. Yeager, Secretary.....	Oslo.....	E. R. Mitchell.....	Gath. Cr.	Test.
610	Gilbert Station.....	Farmers Co-op. Creamery Co.	Co-op.	E. T. Sheppard.....	Gilbert Station.....	C. P. Lake.....	S. & G. O.	Test.
611	Huxley.....	Huxley Farmers Co-op. Crm. Co.	Co-op.	A. H. Sheldahl.....	Huxley.....	P. J. Severalde.....	Separator	Test.
612	Marwell.....	Beatrice Creamery Co. (s)	Stock.	Beatrice Creamery Co.....	Des Moines.....	.....	Separator	Test.
613	Elwell.....	Beatrice Creamery Co. (s)	Stock.	Beatrice Creamery Co.....	Des Moines.....	.....	Separator	Test.

CREAMERY TEST—CONTINUED.

Office record number.	Location.	Name of Creamery.	How operated.	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager.	Name of Butter Maker.	Separator or method of creaming.	Method of re-ceiving milk.
614	Roland	Co-op.	Co-op.	L. T. Olson, Secretary.	Roland	S. H. Jonbal.	Separator	Test.
615	Story City	Co-op.	Co-op.	Alex. Henderson.	Story City	Geo. Wick.	S. & G. O.	Test.
616	Slater	Co-op.	Co-op.	Andrew Mayland, Secretary.	Slater	R. J. Severeld.	Separator	Test.
617	Zearing	Stock.	Stock.	C. P. Bean.	Zearing	R. R. Hadloy.	S. & G. O.	Test.
	Tama County—							
618	Chelsea	Springbrook	Indiv.	John Newman Company.	Elgin, Ill.	J. G. Bucher.	S. & G. O.	Test.
619	Elberon	Springbrook	Indiv.	John Newman Company.	Elgin, Ill.	Chas. Bucher.	S. & G. O.	Test.
620	Tama	Tama Co-op Creamery Co.	Stock.	L. O. Carson, Secretary.	Tama	W. H. Graham.	Hand Sep.	Test.
621	Clutier	Clutier Creamery company	Indiv.	E. D. Armstrong.	Clutier	E. D. Armstrong.	Gath. Cr.	Test.
	Taylor County—							
622	Clearfield	Clearfield Creamery company.	Stock.	Joe Doubet.	Clearfield	Geo. McNair.	Hand Sep.	Test.
623	Bedford	The Bedford Creamery.	Indiv.	A. E. Lake, Manager.	Bedford	Leslie O. Klopp.	Hand Sep.	Test.
	Union County—							
624	Afton	Afton Creamery	Indiv.	G. W. Kelly.	Afton	V. O. Williams.	Hand Sep.	Test.
625	Creston	Clarinda Poultry, Bnt. & Egg Co.	Indiv.	W. T. & White, Manager.	Clarinda		Hand Sep.	Test.
	Van Buren County—							
626	Bonaparte	Yorkshire Creamery (s)	Indiv.	John Morrell Company.	Ottumwa		Separator	Test.
627	Milton	Yorkshire Creamery (s)	Indiv.	John Morrell Company.	Ottumwa		Separator	Test.
628	Douds	Yorkshire Creamery (s)	Indiv.	John Morrell Company.	Ottumwa		Separator	Test.
	Wapello County—							
629	Blakesburg	Blakesburg Creamery	Indiv.	Foland Bros.	Blakesburg	Foland Bros.	Separator	Test.
630	Ottumwa	Yorkshire Creamery	Indiv.	R. N. Morrell, Secretary.	Ottumwa	J. H. Davis.	S. & G. O.	Test.
	Warren County—							
631	Carlisle	Carlisle Co-op. Crm. Company	Co-op.	C. Bracamp.	Carlisle	H. Owens.	Separator	Test.
632	Indianola	Warren County Creamery.	Indiv.	Charley Taylor.	Indianola		Separator	Test.

CREAMERY LIST—CONTINUED.

Office record number.	Location.	Name of Creamery.	How operated.	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager.	Name of Butter Maker.	Separator or Gath. cream.	Method of re-ceiving milk.
668	Ridgeway	L. T. Fosse & Sons.	Indiv.	L. T. Fosse	Ridgeway.	O. A. Fosse	Gath. Or.	Oil Test
669	Ridgeway	L. T. Fosse & Sons (s)	Indiv.	L. T. Fosse	Ridgeway . . . . .	.....	Gath. Or.	Oil Test
670	Ridgeway	Lincoln Farmers Co-op. Orm.	Co-op.	A. W. Prann, Secretary	Ridgeway	G. A. Bakkin	Gath. Or.	Oil Test
	Woodbury County							
671	Correctionville.	Hopkins & Hubbard	Indiv.	A. W. Hubbard, Manager	Correctionville.	M. J. Goodnow	Hand Sep	Test.
672	Sioux City.	Hanford Produce Company	Stock.	A. S. Hanford, President.	Sioux City	M. O. Wheelock	Hand Sep	Test.
	Worth County							
673	Fertile		Co-op.	J. T. Tallackson, Sec.	Fertile	J. A. Johnson	Separator	Test.
674	Joice		Co-op.	O. J. Krouse, Secretary	Joice	A. H. Nelson	Separator	Test.
675	Kensett		Co-op.	H. K. Myll, Secretary	Kensett	Gilbert Olson	S. & G. C.	Test.
676	Manly		Co-op.	E. R. Stock, Secretary	Manly	H. E. Ford	S. & G. C.	Test.
677	Miltonville		Indiv.	P.	Miltonville.	P. Lorenzen	Gath. Or.	Test.
678	Northwood		Co-op.	M.	Northwood, R. 8.	R. B. Bergsather	S. & G. C.	Test.
679	Northwood		Stock.	E.	Northwood	A. M. Hanson	Separator	Test.
680	Northwood		Co-op.	E.	Northwood	A. C. Talle	S. & G. C.	Test.
681	Bristol		Co-op.	J.	Lake Mills . . . . .	.....	Separator	Test.
682	Kensett		Co-op.	O.	Kensett	W. O. Dahlen	Separator	Test.
683	Grafton		Indiv.	Henry white	Grafton	Don White	S. & G. C.	Test.
	Wright County							
684	Belmond		Co-op.	J. W. Baxter, Secretary	Belmond, R. 2	C. H. Vanderham	Hand Sep	Oil Test
685	Clarion		Co-op.	C. P. Morton, Secretary	Clarion	P. W. Umbriet	Gath. Or.	Oil Test
686	Goldfield		Indiv.	De Witt Goodrich	Goldfield	De Witt Goodrich	Hand Sep	Test.
687	Galt		Stock.	A. K. Ke chum	Clarion R. 6	A. Fatland	S. & G. C.	Test.
688	Palaville		Co op	F. O. Loate, Secretary	Belmond	M. Greenfield	Separator	Test.
689	Rowan	Rowan Co-op. Creamery	Co-op.	J. H. Dix, Secretary	Rowan	Charles Heath	Separator	Test.

IOWA CHEESE FACTORY LIST.

Alphabetically Arranged According to Counties and Towns Near Which Factory is Located, Together with Information Pertaining to Each.

Office record number.	Located at or Near.	Name of Cheese Factory.	How operated.	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager.	Name of Cheese Maker.	Method of testing milk.
1	Adams County — Cumberland.	Lincoln Center Cheese Factory	Indiv.	Henry Fleharty, Proprietor	Hayes	Henry Fleharty.	Hundred.
2	Appanoose County — Hiattsville	Hiattsville Cheese Factory	Indiv.	W. O. Hiatt, Proprietor....	Centerville, R. 2	W. O. Hiatt.	Hundred.
3	Benton County — Atkins	Ideal Cheese Factory	Indiv.	A. C. Stewart, Proprietor..	Atkins	J. W. Stewart ..	Hundred.
4	Black Hawk County — Waterloo	The Fowler Co.	Stock ..	The Fowler Co	Waterloo	F. E. Wightman	Test.
5	Waterloo	North Star Cheese Factory	Stock .	The Fowler Co	Waterloo	John St. John...	Test.
6	Bremer County — Janesville	The Fowler Co.	Stock ..	The Fowler Co	Waterloo	J. McMurray	Test.
7	Cerro Gordo County — Burchinal	Burchinal Cheese Factory	Indiv.	T. R. Coates, Proprietor...	Burchinal	T. R. Coates.	Test.
8	Crawford County — Astor	Astor Cheese company	Co-op .	O. A. Olson, Secretary.	Astor	Guy B. Teeple...	Hundred.

IOWA CHEESE FACTORY LIST—CONTINUED.

Office record number.	Located at or Near.	Name of Cheese Factory.	How operated.	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager.	Name of Cheese Maker.	Method of receiving milk.
9	Clarke County Weldon	Weldon Cheese Factory	Indiv. . .	L. M. Parr, Proprietor.	Weldon	Mrs. L. M. Parr	Hundred.
10	Floyd County— Charles City	Elm Springs Factory	Indiv. . .	H. D. White, Proprietor . .	Charles City	Walter B. Pfeiffer	Hundred.
11	Greene County— Dana	Dana Mutual Co-op. Crm. Company.	Co-op . .	W. J. Elling, Secretary . . .	Dana	W. J. Elling.	Test.
12	Guthrie County— Jamaica	Jamaica Cheese Factory	Co-op . .	Goreham Bros.	Jamaica	W. E. Goreham.	Hundred.
13	Hardin County— Iowa Falls	Ellis Cheese Factory	Stock . .	W. I. Clark	Iowa Falls, R. 8. . . .	W. I. Clark	Hundred.
14	Howard County— Cresco	Cresco Cheese Factory	Indiv. . .	Wm. Kellow, Jr	Cresco	W. N. Lathrop. .	Hund.
15	Cresco	Clover Leaf Cheese Factory	Indiv. . .	J. J. House	Cresco	J. J. House	Hund.
16	Humboldt County— Lu Verne	Pioneer Cheese Factory	Indiv. . .	Jacob Regez.	Monroe, Wisconsin	Ben Roder	Test.
17	Henry County— Noble	The Christner Butter and Cheese Co	Indiv. . .	O. O. Christner	Wayland	Ralph Hood	Test.
18	Jefferson County— Brighton	Pleasant Plain Cheese Factory	Indiv. . .	J. H. Saaseen	Pleasant Plain	J. H. Saaseen . . .	Test.
19	Veeco	Veeco Cheese Factory	Stock . .	E. A. Howler	Veeco	H. W. Spencer. . .	Test.

20	Keokuk County— Talleyrand	Talleyrand Factory	Stock ..	Cliff on Tucker	Talleyrand	Clifton Tucker ..	Test.
	Lee County—						
21	Franklin Station	Franklin Station Cheese Company ..	Stock ..	Henry G. Ort	Donnellson, R. 1	A. W. Newell ..	Test.
	Monroe County—						
22	Albia	Bone Cheese Factory	Indiv. ...	S. G. Bone	Albia	Joe Bone	Hund.
	Marshall County—						
23	Liscomb	Liscomb Cheese Company	Stock ..	Thomas E. Culp	Liscomb	Thos. E. Culp ...	Test.
	Muscatine County—						
24	Wilton Junction.	Muscatine French Cheese Company.	Co-op ..	Fritz Kolb, Secretary	Wilton Junction	Homer Carson ...	Hund.
	Poweshiek County—						
25	Grinnell	Bartell Cheese Factory	Indiv. ...	J. W. Fowler	Grinnell .....	.....	Test.
26	Jacobs	Jacob Cheese Factory	Indiv. ...	A. C. Payne	Jacobs	L. A. Wilson	Test.
	Scott County—						
27	Princeton	Wapsie Cheese Factory	Stock ..	Chas. A. Pope	Princeton	Geo. L. Ayers ...	Test.
	Story County—						
28	Iowa Center ...	Iowa Center Cheese Factory	Indiv. ...	J. Q. Moore	Iowa Center	W. H. Moore	Test.
29	Ames	I. A. C. Cheese Factory	State ..	G. L. McKay, Manager ...	Ames .....	.....	Test.
	Taylor County—						
30	Sharpsburg	Sharpsburg Cheese Company	Indiv. ...	G. S. Eastlack	Sharpsburg	G. S. Eastlack ...	Hund.
31	Blockton	Blockton Cheese Factory	Indiv. ...	Waldrip & Bonafield	Blockton	Waldrip & Bonafield ..	Hund.
	Washington County—						
32	West Chester ...	Leet Cheese Factory	Indiv. ...	W. E. Leet	West Chester	W. E. Leet	Hund.
33	Clay	Clay Cheese Factory	Stock ..	O. Meachman	Richland, R. 2	O. W. Hake	Test.
	Wayne County—						
34	Promise City ...	Promise City Cheese Factory	Co-op ..	O. R. Noble	Promise City	O. R. Noble	Hund.
35	Sewall	Sewall Cheese Manufacturing Co ...	Stock ..	R. N. Farnsworth	Sewall	Samuel Sander ...	Hund.
36	Lineville ...	Lineville Cheese Factory	Indiv. ...	Mathew De Haan ..	Lineville	Mathew De Haan ...	Hund.
37	Seymour	Seymour Cheese Company	Stock ..	E. A. Weagley, Secretary ..	Seymour	R. E. Spencer ...	Hund.

STATISTICS OF THE CREAMERIES.

In the following table will be found certain information in regard to the numbers and manner of operating the creameries of this State. The list this year shows a decrease from that of last year of 101 plants, of which 44 were skimming stations. The report for the year previous showed that 61 skimming stations were closed making a total number of stations closed for the last two years of 105, during which time there were 31 skimming stations built.

Creameries listed under the head of "individual" are those that are owned by one person or a partnership or firm. Those listed as "co-operative" and "stock company" are very nearly all creameries commonly called co-operative, from which it will be seen that about thirty-five per cent of the creameries of this State are operated on a plan other than the so-called co-operative system.

There are still almost 300 creameries in this State that receive practically nothing but milk. The eighty-five gathered cream creameries and the seventy hand separator creameries receive nothing but cream, the latter from hand separators only.

Of the six hundred seventy-two plants listed as buying milk or cream by the test, forty-one buy cream by the inch and use the oil test churn to determine how much butter must be paid for. Nineteen creameries still buy milk and pay a uniform price per hundred pounds.

A study of the location of the creameries that have closed in the last two or three years will show that, speaking generally, it has been the "individual" plants that have succumbed to the adverse conditions that have prevailed. The co-operatives have better been able to hold their own against the new forms of competition.

OWNERSHIP—OPERATION—MILK BY TEST—NEW CHANGES. '

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100

OWNERSHIP—OPERATION—MILK BY TEST—NEW CHANGES—CONTINUED.

Counties.	Ownership— Individual, Co-operative or Stock Company.					How Operated.			Pay by owe.	New Creamer- ies and Skim Stations and Plants Closed.			
	No of creameries.	No. of skim stations.	Individual.	Co-operative.	Stock company.	Separator.	Gathered cream.	Combined plant. Exclusive hand separator plant.		New creameries.	New skim stations.	Total.	Plants closed.
Jefferson.....				3	1	3	1		4				
Johnson.....	1								1				1
Jones.....	13	6		1		9			33				
Keokuk.....	3					3			3		1	1	1
Kossuth.....	4			1		14	1		21				
Lee.....													
Linn.....	14	4		3		9	1		18	3			
Louis.....													
Lucas.....	1					1			1				
Lyon.....	1	1							2				2
Madison.....	1								1		1	1	
Mahaska.....				1					1				1
Marion.....	1			1		1	1		2				
Marshall.....		3		1		1	2		4				4
Mill.....					3	3			3				
Mitchell.....	1	9					7		10				
Monona.....	1								1				
Monroe.....	1								1				
Montgomery.....													1
Muscatine.....	2					1	1		2	1		1	1
O'Brien.....	3			2		2	1		5				
Oceola.....	2								2				1
Page.....				1					1				2
Palo Alto.....		13		2		3			15				
Plymouth.....	3	2				1	3		5				
Pocahontas.....	4			2		1			6				3
Polk.....	1	1		5		1	2		7	2		2	
Pottawattamie.....	6	1		2		3	1		7	1	1	1	1
Poweshiek.....	6	1					1		6				1
Ringgold.....													2
Sac.....	5	2		1			1		8				3
Scott.....	2						1		2				
Shelby.....	1	6		2		3			9				1
Sioux.....	5			1		1			6				
Story.....	1	7		3		5	1		11		1	1	4
Tama.....	3			1			1		4				1
Taylor.....	1			1					2				
Union.....	2								2				
Van Buren.....	2					3			5				
Wapello.....	2					1			3				1
Warren.....	1	1				2			2				1
Washington.....	2						2		2				1
Wayne.....	3								3				2
Webster.....	2			1					3				1
Winnebago.....	1	12		2		4			15				3
Winneshiek.....	7	5					15		15				
Woodbury.....	1			1					2				2
Worth.....	2	3		1		5	1		11				1
Wright.....	1	4		1		2	1		6				1
THE STATE.....	243	335	113	233	35	233	35	233	672	19	10	9	19, 120

Of the creameries reported as paying by test, forty-one are using the oil test churn and the cream is bought by the inch instead of by weight. Of the plants closed forty-four were skimming stations only.

COMPARISONS.

	1897	1898	1899	1900	1901	1902	1903	1904
Total number of creameries and skim stations	891	954	997	994	980	919	792	691
OWNERSHIP.								
Individual	504	516	501	524	497	377	306	242
Co-operative	849	849	849	864	860	876	850	885
Stock company	87	88	116	105	102	165	135	118
State property	1	1	1	1	1	1	1	1
PLAN OF OPERATION.								
Separator			842	853	772	748	588	298
Gathered cream			71	85	92	105	119	85
Combined plant			50	56	96	65	185	243
* Exclusive hand separator								70
BASIS OF RECEIVING MILK OR CREAM.								
By the test			849	896	890	882	748	672
By weight or measure			110	98	70	57	44	19
CREAMERY CHANGES.								
Number of new creameries	} 133	90	56	87	85	34	25	10
Number of new skim stations		43	86	84	18	22	16	9
Number of plants closed		55	79	75	87	97	160	120

* Before 1904 hand separator creameries were included as gathered cream plants.
In 1903 sixty-one skim stations closed; in 1904 forty-four skim stations closed.

RAILWAY BUTTER SHIPMENTS.

The following tables are made up from the statistics furnished by all the railroads of the state showing the amount of butter shipped from points in Iowa to points outside the state. Little or no butter is imported into the state in any form and the figures in the following tables practically represent the surplus production of the state. It is estimated that about 65,000,000 pounds of butter are made and consumed in the state, so that the total production is about 140,000,000 pounds, having an aggregate value of \$28,000,000.

In the following tables the numbers showing pounds of butter shipped from each county must not be understood as representing the amount of butter produced in the respective counties. For instance, the counties highest on the list—Woodbury, Polk and Lee—are not large producers of butter. Woodbury and Polk counties contain centralized creameries making large quantities of butter, and all of these counties have process butter factories making large quantities of butter, but none of them are the source of any great proportion of the butter which is manufactured and shipped in the county.. The same thing is true, in less degree, in regard to other counties.

TABLE SHOWING NUMBER OF CREAMERIES—GROSS POUNDS
OF BUTTER SHIPPED OUT OF STATE.

Counties.	Number of Cream- eries for 1903 and 1904.		Gross Pounds of Butter Shipped out of the State for the Years Ending September 30, 1903 and 1904, Showing In- crease and Decrease by Counties.			
	1903.	1904	1903	1904	Increase.	Decrease.
THE STATE.....	792	691	93,761,661	90,344,358	.....	3,417,303
Adair.....	18	11	592,912	771,124	178,212	.....
Adams.....	8	6	171,648	61,810	.....	109,838
Allamakee.....	7	7	1,489,747	1,460,588	.....	29,159
Appanoosa.....	.....	.....	118,867	71,199	.....	47,668
Audubon.....	11	9	990,587	1,070,759	80,222	.....
Benton.....	10	4	797,821	508,516	.....	289,305
Black Hawk.....	17	16	1,494,874	1,292,165	.....	202,709
Boone.....	4	8	71,617	85,359	13,742	.....
Bremer.....	21	21	2,496,880	2,511,489	14,609	.....
Buchanan.....	17	14	2,442,670	2,155,332	.....	287,338
Buena Vista.....	7	4	1,094,595	1,004,419	.....	90,176
Butler.....	20	19	1,827,671	1,880,634	52,963	.....
Calhoun.....	8	7	1,574,950	1,208,779	.....	366,171
Carroll.....	12	9	1,530,613	1,515,308	.....	15,305
Cass.....	7	8	226,102	86,541	.....	139,561
Cedar.....	9	9	418,508	446,422	27,914	.....
Cerro Gordo.....	7	7	645,449	976,595	331,146	.....
Cherokee.....	4	4	171,463	216,275	44,812	.....
Chickasaw.....	18	18	2,619,271	2,289,708	.....	329,563
Clarke.....	.....	.....	18,755	10,855	.....	7,900
Clay.....	8	6	614,818	814,490	200,172	.....
Clayton.....	18	20	3,916,094	3,206,478	.....	709,616
Clinton.....	15	12	660,676	1,077,206	416,530	.....
Crawford.....	8	2	958,798	1,041,830	83,032	.....
Dallas.....	8	9	731,682	475,697	.....	255,985
Davis.....	4	5	47,157	100	.....	47,057
Decatur.....	5	5	125,640	117,828	.....	7,812
Delaware.....	26	26	2,967,206	2,406,285	.....	560,921
Des Moines.....	.....	.....	801,670	817,520	15,850	.....
Dickinson.....	4	4	1,201,551	649,881	.....	551,670
Dubuque.....	28	22	2,788,755	2,710,439	.....	78,316
Emmet.....	8	8	854,436	589,439	.....	264,997
Fayette.....	19	18	2,494,658	2,408,110	.....	86,548
Floyd.....	6	5	924,553	951,574	27,021	.....
Franklin.....	10	10	872,920	588,959	166,069	.....
Fremont.....	.....	.....	3,868	181,421	177,553	.....
Greene.....	4	2	230,652	187,688	.....	42,964
Grundy.....	10	6	708,698	737,897	29,199	.....
Guthrie.....	15	11	1,180,018	1,000,443	.....	179,575
Hamilton.....	18	9	1,654,582	1,379,634	.....	274,948
Hancock.....	12	10	461,156	599,880	138,724	.....
Hardin.....	16	14	1,629,760	1,644,681	14,921	.....
Harrison.....	2	2	840,875	387,619	.....	453,256
Henry.....	1	.....	84,423	68,785	.....	15,638
Howard.....	9	9	1,860,860	1,199,978	.....	660,882
Humboldt.....	11	11	794,480	866,333	71,853	.....
Ida.....	2	2	214,290	229,485	15,195	.....
Iowa.....	10	9	698,889	783,859	84,970	.....
Jackson.....	16	16	1,404,803	1,666,853	262,050	.....
Jasper.....	6	8	297,360	275,000	.....	22,360

TABLE SHOWING NUMBER OF CREAMERIES—GROSS POUNDS OF BUTTER
SHIPPED OUT OF STATE—CONTINUED.

Counties.	Number of Creameries for 1903 and 1904.		Gross Pounds of Butter Shipped out of the State for the Years Ending September 30, 1903 and 1904, Showing Increase and Decrease by Counties.			
	1903	1904	1903	1904	Increase.	Decrease
Jefferson.....	4	4	110,752	116,792	6,040	.....
Johnson.....	2	1	124,706	323,419	198,713	.....
Jones.....	25	23	8,926,068	8,893,621	.....	332,447
Keokuk.....	8	8	433,281	141,082	.....	292,199
Kossuth.....	22	21	1,732,170	1,852,854	70,184	.....
Lee.....	..	.....	2,234,006	2,990,166	746,160	.....
Linn.....	22	21	1,507,488	1,626,547	119,059	.....
Louisa.....	1	.....	51,449	21,184	.....	30,265
Lucas.....	2	1	.....	99,711	99,711	.....
Lyon.....	5	2	234,374	264,058	29,684	.....
Madison.....	.....	1	25,668	25,668	28	.....
Mahaska.....	2	1	692,568	115,780	.....	576,788
Marion.....	3	2	67,550	101,235	33,735	.....
Marshall.....	6	4	526,492	633,609	107,117	.....
Mills.....	8	8	14,961	8,885	.....	11,126
Mitchell.....	10	10	1,577,956	1,405,516	.....	172,440
Monona.....	1	1	60,795	72,921	12,126	.....
Monroe.....	1	1	58,667	18,850	.....	19,817
Montgomery.....	1	.....	149,658	72,231	.....	77,427
Muscatine.....	2	2	123,118	62,993	.....	60,125
O'Brien.....	5	5	678,065	837,220	159,155	.....
Osceola.....	3	2	305,169	475,045	169,876	.....
Page.....	8	1	2,108,922	720,735	.....	1,388,187
Palo Alto.....	15	15	1,524,245	1,280,886	.....	243,359
Plymouth.....	6	5	464,980	583,031	118,051	.....
Pocahontas.....	8	6	644,998	456,821	.....	188,177
Polk.....	5	7	3,224,270	4,012,752	788,482	.....
Potawattamie.....	8	8	324,894	353,347	28,453	.....
Poweshiek.....	7	6	407,818	1,012,113	604,295	.....
Ringgold.....	2	..	12,307	.....	.....	12,307
Sac.....	11	8	699,777	701,012	1,235	.....
Scott.....	2	2	326,831	306,443	.....	20,388
Shelby.....	10	9	231,851	513,208	281,357	.....
Sioux.....	6	6	944,706	1,194,390	249,684	.....
Story.....	14	11	1,388,206	1,064,669	.....	323,537
Tama.....	5	4	545,995	637,049	141,144	.....
Taylor.....	2	2	518,096	980,027	461,931	.....
Union.....	9	2	638,011	581,482	.....	56,529
Van Buren.....	3	3	96,813	6,620	.....	90,193
Wapello.....	3	2	137,107	93,950	.....	43,157
Warren.....	3	2	.....	200	200	.....
Washington.....	5	2	403,126	260,979	.....	142,147
Wayne.....	4	3	794,455	957,156	162,701	.....
Webster.....	5	3	659,325	715,596	56,271	.....
Winnebago.....	6	5	1,105,416	1,177,069	71,653	.....
Winneshie'r.....	7	15	2,156,992	1,931,392	.....	225,600
Woodbury.....	2	2	7,320,139	6,283,584	.....	1,036,555
Worth.....	12	11	861,033	844,902	.....	16,131
Wright.....	7	6	791,216	1,027,392	236,176	.....
THE STATE.....	792	691	93,761,661	90,844,358	.....	3,417,303

NET BUTTER SHIPMENTS BY COUNTIES AND RANK—AREA OF COUNTIES.

Showing pounds of butter shipped per square mile and rank of counties; also total net butter shipments for the State and net pounds per square mile, for the year ending September 30, 1904.

Counties.	Total net shipments of butter for the year.	Rank by total lbs. shipped.	Area of square miles in counties.	Pounds per square mile.	Rank by lbs. per square mile.
THE STATE	75,889,260	.....	55,475	1,385	.....
Adair	647,744	44	576	1,124	49
Adams	51,920	90	482	120	87
Allamakee	1,227,289	19	615	1,995	24
Appanoose	59,807	87	500	119	88
Audubon	899,488	29	482	2,082	22
Benton	422,958	59	720	587	65
Black Hawk	1,086,418	22	576	1,886	25
Boone	67,501	84	576	117	89
Bremer	2,109,607	7	482	4,767	5
Buchanan	1,810,479	11	576	8,149	10
Buena Vista	848,712	34	576	1,464	87
Butler	1,579,782	18	576	2,742	18
Calhoun	1,015,875	24	576	1,762	27
Carroll	1,272,854	18	576	2,209	21
Cass	72,695	83	576	126	84
Cedar	374,984	68	576	649	68
Cerro Gordo	820,550	37	576	1,424	89
Cherokee	181,671	78	576	815	74
Chickasaw	1,922,804	10	504	8,814	6
Clarke	9,118	94	482	21	94
Clay	688,174	48	576	1,194	46
Clayton	2,698,496	4	745	8,615	8
Clinton	904,853	28	680	1,330	41
Crawford	895,187	30	720	1,248	48
Dallas	899,585	60	576	698	60
Davis	84	98	500	.....	98
Decatur	98,975	77	584	110	90
Delaware	2,021,288	9	576	8,509	9
Des Moines	2,671,6	67	400	667	62
Dickinson	545,900	51	408	1,838	40
Dubuque	2,276,778	6	604	8,769	7
Emmet	453,128	56	408	1,112	50
Fayette	2,022,812	8	720	2,809	11
Floyd	799,822	39	504	1,502	34
Franklin	451,785	57	576	784	57
Fremont	152,498	75	514	297	75
Greene	157,657	74	570	2,766	12
Grundy	619,883	45	504	1,229	44
Guthrie	840,372	85	576	1,459	88
Hamilton	1,158,909	21	576	2,011	23
Hancock	461,899	55	576	802	56
Hardin	1,881,490	16	576	2,898	15
Harrison	283,599	65	684	414	69
Henry	58,579	88	432	124	85
Howard	1,007,981	25	460	2,191	19

NET BUTTER SHIPMENTS BY COUNTIES AND RANK—AREA OF COUNTIES—CON.

Counties.	Total net ship- ments of but- ter for the year.	Rank by total lbs. shipped.	Area of square miles in coun- ties.	Pounds per square mile.	Rank by lbs. per square mile.
Humboldt	727,719	40	432	1,687	33
Ida	192,767	78	432	446	33
Iowa	610,641	46	574	1,060	51
Jackson	1,899,796	15	619	2,099	21
Jasper	231,000	69	720	321	33
Jefferson	98,105	77	432	229	33
Johnson	271,771	68	578	470	33
Jones	2,850,641	3	576	4,966	11
Keokuk	118,508	76	576	206	33
Kossuth	1,556,977	14	984	1,582	21
Lee	2,508,399	5	490	5,109	3
Linn	1,866,299	17	720	2,189	23
Louisa	17,794	98	396	45	33
Lucas	83,757	81	432	194	33
Lyon	221,808	70	600	369	33
Madison	21,584	92	576	37	33
Mahaska	97,255	79	576	169	33
Marion	85,079	80	576	147	31
Marshall	532,281	52	576	924	24
Mills	8,221	96	445	7	33
Mitchell	1,180,688	20	480	2,251	17
Monona	61,258	85	432	142	32
Monroe	32,634	91	432	75	31
Montgomery	61,674	86	432	141	32
Muscatine	52,914	89	436	121	32
O'Brien	703,269	42	576	1,221	45
Osceola	399,087	61	408	978	53
Page	605,417	47	528	1,146	47
Palo Alto	1,053,902	28	576	1,795	28
Plymouth	489,746	53	820	597	34
Pocahontas	383,729	62	576	666	31
Polk	3,271,425	2	576	5,679	1
Pottawattamie	296,811	64	576	513	32
Poweshiek	850,174	38	576	1,476	33
Ringgold		99	545		33
Sac	583,850	49	576	1,022	32
Scott	257,412	68	447	576	33
Shelby	481,094	58	576	748	51
Sioux	1,008,287	26	768	1,306	42
Story	894,821	31	576	1,553	31
Tama	577,121	50	720	710	35
Taylor	823,222	36	540	1,324	32
Union	483,403	54	432	1,130	33
Van Buren	5,560	95	502	11	33
Wapello	78,918	82	432	183	33
Warren	218	97	576		33
Washington	219,222	71	576	380	33
Wayne	808,990	38	528	1,521	33
Webster	601,100	48	720	836	33
Winnebago	968,787	27	408	2,424	14
Winneshiek	1,622,869	12	696	2,331	13
Woodbury	5,378,214	1	864	6,225	1
Worth	709,717	41	408	1,739	33
Wright	868,009	32	576	1,498	33
THE STATE	75,889,260		55,475	1,385	

TABLE SHOWING TOTAL NET BUTTER SHIPMENTS OF THE STATE FOR THE YEARS 1890 TO 1904, INCLUSIVE, FROM IOWA TO POINTS OUTSIDE THE STATE; ALSO INCREASE OR DECREASE AS COMPARED WITH THE YEAR PRECEDING.

Years Ending October 1.	Net pounds of butter shipped.	Increase over preceding year.	Decrease from preceding year.
1890.....	71,255,796	.....	.....
1891.....	68,690,716	.....	2,565,080
1892.....	60,112,981	.....	8,577,735
1893.....	54,572,902	.....	5,540,079
1894.....	54,509,417	.....	63,485
1895.....	66,497,108	11,987,691	.....
1896.....	80,082,916	13,585,808	.....
1897.....	88,620,081	8,537,165	.....
1898.....	75,864,837	.....	6,255,744
1899.....	76,620,826	.....	744,011
1900.....	71,719,829	.....	4,910,997
1901.....	74,868,993	3,144,666	.....
1902.....	72,714,584	.....	2,149,411
1903.....	77,079,794	4,365,210	.....
1904.....	75,889,260	.....	1,190,534

Counties shipping more than 1,000,000 pounds, net, of butter in the year ending September 30, 1904:

1904.	Counties.	1903.
5,587,214.....	Woodbury.....	6,148,916
3,271,425.....	Polk.....	2,708,386
2,850,641.....	Jones.....	3,297,892
2,698,436.....	Clayton.....	2,889,518
2,508,889.....	Lee.....	1,876,565
2,276,779.....	Dubuque.....	2,800,554
2,109,607.....	Bremer.....	1,297,379
2,022,812.....	Fayette.....	2,095,508
2,021,238.....	Delaware.....	2,492,453
1,922,304.....	Chickasaw.....	2,200,187
1,810,479.....	Buchanan.....	1,251,842
1,622,869.....	Winneshek.....	1,811,873
1,579,732.....	Butler.....	1,535,243
1,556,977.....	Kossuth.....	1,497,022
1,399,786.....	Jackson.....	1,182,974
1,381,490.....	Hardin.....	1,368,998
1,366,299.....	Linn.....	1,266,285
1,272,854.....	Carroll.....	1,277,814
1,227,239.....	Allamakee.....	1,251,386
1,180,683.....	Mitchell.....	1,325,483
1,158,909.....	Hamilton.....	1,889,848
1,066,418.....	Black Hawk.....	1,255,694
1,063,902.....	Palo Alto.....	1,280,365
1,016,875.....	Calhoun.....	1,322,959
1,007,981.....	Howard.....	1,142,702
1,008,287.....	Sioux.....	798,753
47,912,625.....	Totals.....	48,261,098

These twenty-six counties ship 60 per cent of the 75,889,260 net pounds of butter shipped from the state.

INDEX.

	PAGE.
Letter of transmittal.....	3
Expense of office of Dairy Commissioner for year ending November 1, 1904.....	5
Farmers' Institutes.....	8
City Milk Inspection.....	9
Table—Showing growth of City Milk Inspection.....	10
Table—Showing cities in which milk inspection is carried on.....	10
Condition of the Creamery and Dairy industry.....	11
Positions for buttermakers.....	13
Oleomargarine.....	14
Supreme Court decision in State vs. Armour Packing Co.....	15
Effect of new Oleo law.....	22
Renovated butter.....	24
List of renovated butter factories.....	24
Table—Showing output of renovated butter.....	24
Table—Showing prices of renovated butter for the year.....	25
Table—Showing average monthly price for fancy western creamery butter in New York market.....	25
Table—Showing increase in size of creameries.....	25
Table—Showing number of patrons and number of cows per creamery.....	26
Table—Showing number of pounds of butter made by hand separator creameries; also number of patrons and number of cows in same...	26
Table—Showing comparison of amount of butter per patron and per cow in various counties.....	27
Prices paid for butterfat.....	28
Why the creameries close.....	31
Cost of making pound of butter.....	33
Cream test bottles.....	34
Testing butter to show the overrun... ..	39
The pipette in cream testing.....	41
Cream Scales.....	41
Condensed directions for making fat tests of cream.....	45
Cream sampling.....	48
The handling of hand separated or gathered cream.....	49
Table No. 1—Showing hand Separators reported by creameries.....	50
Table No. 2—Showing number of patrons, cows, creameries using acid test, creameries that pasteurize the skimmed milk and creameries that use skimmed milk weigher.....	54
Table No. 3—Showing number of pounds of milk received, number of pounds of cream received, pounds of butter made, amount paid to patrons for milk and cream, pounds sold to patrons in Iowa and shipped out of the state.....	57

Cheese making.....	59
Table No. 4—Showing number of cows for each county and for the state for the years 1900, 1901, 1902, 1903, 1904 and values for 1904, as re- ported by the county auditors to the state auditor	60
Creamery list.....	62
Cheese factory list.....	90
Railway butter shipments	92

NINETEENTH ANNUAL REPORT

OF THE

STATE DAIRY COMMISSIONER

TO THE

GOVERNOR OF THE STATE OF IOWA

FOR THE YEAR 1905

H. R. WRIGHT

STATE DAIRY COMMISSIONER

PRINTED BY ORDER OF THE GENERAL ASSEMBLY

DES MOINES:
BERNARD MURPHY, STATE PRINTER
1906

LETTER OF TRANSMITTAL.

To His Excellency, ALBERT B. CUMMINS, Governor of Iowa:

SIR—In compliance with the law, I have the honor to submit herewith the Nineteenth Annual Report of the Dairy Commissioner.

Very Respectfully,

H. R. WRIGHT,
Dairy Commissioner.

DES MOINES, November 15, 1905.

EXPENSE OF OFFICE OF DAIRY COMMISSIONER FOR THE YEAR ENDING NOVEMBER, 1, 1905.

Dairy Commissioner's salary	\$ 1,500.00		
Dairy commissioner's expense	<u>521.44</u>	\$	2,011.44
Deputy Dairy commissioner's salary	\$ 1,200.00		
Deputy Dairy commissioner's expense	<u>208.15</u>	\$	1,408.15
Assistant Dairy commissioner's salary (P. H. Kieffer)	\$ 1,200.00		
Assistant Dairy commissioner's expense (P. H. Kieffer)	<u>1,072.97</u>		2,172.97
Assistant Dairy commissioner's salary (W. S. Smarzo)	\$ 1,200.00		
Assistant Dairy commissioner's expense (W. S. Smarzo)	<u>1,191.45</u>	\$	2,391.45

EXPENSE OF MILK INSPECTION IN FOURTEEN CITIES

Milk Agents' Fees	\$ 1,839.00		
Milk Agents' expense	129.68		
Milk Agents' special work	<u>3.00</u>	\$	1,971.68

OFFICE EXPENSES.

Legal expenses	\$ 140.00		
Analyses	117.00		
Atlas	25.00		
Star Engraving Co.,	14.00		
Rubber Stamps	1.50		
Cream Albumenoid	1.25		
Oleo samples	<u>3.69</u>		302.44
Express, freight and cartage			42.19
Telegraph and Telephone			<u>21.94</u>
		\$	10,437.26
*Less salaries			<u>5,100.00</u>
		\$	5,337.26
Less rebates on mileage			<u>400.23</u>
Total expenditures from appropriations		\$	4,937.03
Average monthly expenses		\$	410.58

* Salaries are not paid from the specific appropriation. The amount appropriated for the biennial period extending from April 1, 1904, to July 1, 1906, 27 months, was \$12,325, of which has been expended in 19 months, \$7,812.40

DAIRY COMMISSIONER'S REPORT.

CONDITIONS OF THE DAIRY INDUSTRY.

This report shows a larger amount of creamery butter made in the State than ever before reported for any year since such reports have been made. Over 82,000,000 pounds of creamery made butter are shown to have been manufactured in this State for the year ending July 1, 1905, and the make of butter since that period has been phenomenal in amount. Not only is the amount of butter very high, but the price obtained for it is higher than the average price for any year since 1893. At the average price for the twelve months ending July 1, 1905, the New York value of the creamery butter made in this state was in excess of \$20,000,000, nearly \$5,000,000 more than the value for the next preceding twelve months.

Since 1900, the number of creameries in this State has been steadily decreasing, so that now we have 655 creameries and skim stations, whereas in 1900 the list showed 994. It must be understood, however, that there has not at any time been any corresponding decrease in the dairy business of the State, or the amount or value of the butter made. There have been, before this year, considerable decreases in the amount of butter made, but the causes of the decrease have been easily pointed out. A critical comparison of the amounts of butter made in the different counties and different parts of the State, will show that there has been a considerable increase in the last year in the northern and northeastern part of the state—usually designated the dairy districts; but the largest amount of increase of creamery made butter has been in the southern half of the State. This part of the State, with the exception of a few counties, has never been known as a dairy section at all, and until the introduction of the hand separator and the practice of shipping cream to large central churning stations, the dairy business of the southern half of the State was very small. It never amounted to enough in a locality, so that creamery building was successful, except, of course, in a few instances; but the establishment of the central plants

and the shipping of cream by rail made possible the practice of the dairy business by an individual without any particular co-operation on the part of his neighbors. For this reason, there are dozens of localities south of the center of the State where the dairy business has trebled and quadrupled in the last eighteen months, to the very great advantage of the farmers in those counties. Without the centralizing plants and the railway facilities for cream shipping, this dairy business would not exist at all for the reason that the profits in farm-made butter are very small indeed, as compared with those of creamery-made butter. Twenty of these larger plants make a total of 17,627,000 pounds of butter,—twenty per cent of the total for the State. There can be no doubt that the principle of centralization of the creamery industry has been of very great value to the farmers of the southern and western parts of the State, where previously no creamery facilities were within their reach; and equally without doubt, the buttermaking industry of those parts of the State will, for a considerable time, at any rate, be controlled by the central plants; and, except in a few localities where the successful local creameries are now operated, the farmer will be compelled to choose between giving up the practice of dairying altogether and the shipping of his cream to the best market for butter fat within his reach.

It does not follow, however, that the centralization plan is the best either for the farmer or the industry as a whole. It is now, as suggested, the only plan available in many localities, and is very valuable for that reason. But there are plenty of places in the State where successful creameries of another kind are already established, and where also the central creameries have their purchasing agents for cream. There are several facts which ought to be recognized in regard to the centralization of cream for butter making. One of them is the question of expense of the plan. Under the head of "Iowa Manufactures, Dairy Products Second," following, some figures bearing on this subject are given and will repay some study. Under the almost universal practice now, the cream shipping creamery pays its local agent one cent a pound for butter fat purchased and the freight on the butter fat is about one cent a pound for butter fat in addition. So that the farmer has to pay about two cents a pound to get his butter fat to the creamery after he has taken it to the shipping station. That is to say the larger plant is handicapped at the start by two cents of expense more than attaches to the creamery that receives its cream direct from the wagon of the patron.

The cream shipping has another failing necessarily unavoidable, in that in many cases the cream purchased is a long time on the road, in hot weather, amid not too good surroundings, after having been purchased, tested and shipped by an agent, who, in the very great majority of cases, has had little or no experience in handling cream. This inevitably results in lowering the value of the cream for butter making purposes, and makes it impossible for even the best of buttermakers to make out of it butter that will bring the highest price, a loss which is, of course, visited upon the producer of the cream.

That the centralization plan is increasingly expensive, is shown by the fact that the net prices paid by them to the farmers at present is less than it was a year ago. At that time this office secured from the central plants themselves statements of the prices they had paid for butter fat for the first ten months of 1904. A comparison with New York prices for butter showed that their net prices for delivery to the creamery was from one-half to one and a quarter cents under New York prices. In order to compare with the present system, it is necessary to remember that for the first ten months of 1904 the centralizer operated upon the plan of buying cream from the individual shipper and that the shipper paid the freight directly, so that his net return was from one and a half to two and a quarter cents under New York. During the past summer, under the agency system, ruling prices have been always two cents under New York, nearly always three cents under New York, and sometimes four cents under the market. Of course, a general statement of this kind does not include the prices that have been paid by certain centralizing plants in localities where competition required a very high price in order to get any business, because in some cases prices above New York have been paid for butter fat and the accusation has been freely made that this was for the purpose, and with the effect of closing up the local creamery.

For a good many years the dairy commissioner and the professors of dairying at the college and a very large number of other persons interested in making the most out of the dairy business of the State have used every effort to induce farmers to take better care of their milk and cream to the end that better butter might be made to be sold for a higher price. Progress in the proper direction has always been entirely too slow to satisfy the dairy enthusiast. With the advent of the hand separator, it was discovered that the quality of cream delivered was much below the quality of milk delivered, and that the quality of butter made was actually deteriorating, and with the beginning of the cream

shipping system the quality of cream has still further deteriorated, for the reason, as already pointed out, that the cream does not reach the buttermaker as soon as it did under other systems, and hence the greater the deterioration. Competition between the central plants and the local plants has been so strong that in only a few localities is any kind of cream rejected. Hence, the farmer, instead of having an inducement for producing high-class cream, is actually encouraged by the situation to careless practices in the handling of his product. It is not practicable for the local creamery to reject his cream, because then he can ship it to the central plants. Up to the present, the cream has nearly all been paid for at the same price, regardless of its quality of cleanliness or wholesomeness. Practically the only grading of cream, as now practiced, is based on the percentage of butter fat, a less price being paid for low testing cream. If it were practicable for a creamery to receive all cream not unfit for the making of human food, and then make two grades of it, to be kept separate in the creamery and made into two lots of butter and sold and the butter fat paid for at its real value, then the farmer would have no cause to complain at all and would have an inducement of a cent and a half to two cents a pound for producing a better quality of cream. Not only would this be true with the man who now produces second grade stuff, but the same facts would be an inducement to the man who is now producing good cream, because, under the present system, he gets no more for the good cream which he produces at considerable extra expense and labor than does the other man, whose cream is bad.

Experience has shown, however, that such a plan would not probably be followed, except in a few cases. Then there is the further question of what legal enactments and measures would be of value in bringing about the desired result. The statute, at the present, provides a penalty for the sale of unwholesome cream, a statute that was enacted to cover the sale of sweet cream for immediate consumption, and which, of course, would be applicable in cases where unwholesome cream is sold or delivered to a creamery. The enforcement of this statute by the dairy commissioner is not at all practicable on account of the great number of sales of cream to be inspected, and for the further reason that, under the present situation, a partial enforcement, such as could be secured, would only serve as an irritation in view of the fact that so many of the creameries are willing and anxious to accept cream in any condition whatever. If now, an addition to this statute is secured, making it an offense of like character to purchase or receive unwholesome cream for buttermaking purposes, such a statute

would not only be practical, but would, to a large extent, enforce itself. The buttermaker, or creamery manager, would not take chances against a law which would cause him to suffer a fine of \$25 or \$100 and he would make the law an excuse for rejecting the unwholesome cream. Such a law as suggested, followed by any reasonable attempt at enforcement, would very greatly increase the quality of the butter made in the State, would protect the public from being imposed upon by butter made from unwholesome cream, and would add to the profits of the dairy farmers a very considerable amount.

WHAT THE FARMER SHOULD RECEIVE FOR HIS BUTTER FAT.

It is true that creameries vary greatly in size, efficiency of management and quality of butter made, but in the creameries of moderate size, making 160,000 to 175,000 pounds of butter it is easy to make the butter for a cent and a half a pound from the time the milk or cream comes into the factory until the butter goes into the car. If the buttermaker can make a twenty per cent overrun, as he ought to be able to do, then for every pound of butter fat for which he must pay he will have 1.2 pounds of butter which on a 20-cent market will sell for 24 cents, not taking account of the premium. The expense will be

Factory expense.....	1.5 cents
Freight	1.5 cents
Commission, 5 per cent.....	1.22 cents
<hr/>	
Total.....	4.22 cents

That is to say if he sells at the market he will lack .22 cents of being able to pay New York prices for butter fat. If he sells at a cent a pound premium he will have .78 cents a pound profits after paying New York price for butter fat. If the market is 25 cents a pound he will sell his 1.2 pounds of butter for 30 cents, and the expense will be the same except for commission which will be 1.5, making the total expense 4.5 cents, so that at this price, without premiums, he can pay all expenses of buttermaker's salary, expense of operation, freights and commissions and have money left. And in this day of universal premiums of at least a cent a pound, and prices above 20 cents the year around it is not too much to say that a good creamery should pay New York prices for butter fat—that the farmer is entitled to get, for butter fat delivered at the creamery, at least New York prices. Of course, if the creamery hires the cream collected and hauled to the creamery, or if the cream has to be handled by an agent or transported by freight

the cost of such collection must be borne by the farmer. Aside from such expense, if the farmer does not receive New York prices for his butter fat it is because of one of the following reasons:

1. The butter may not be as well sold as it should be. This is the manager's fault and can be easily remedied.
2. The overrun may not be as much as 20 per cent. If not this is the fault of the buttermaker and can be easily remedied.
3. The creamery may be so small that the butter is made at an expense of two or two and a half or three cents a pound. This can only be remedied by increasing the business, and if this is not possible the creamery is thereby handicapped in its competition with the larger creameries of whatever kind.
4. The cream and milk delivered at the creamery may be so poor that the best of buttermakers cannot make high selling butter out of it. This is the fault of the farmer who produces it and the buttermaker or manager who receives it and the loss is almost altogether visited upon the patron. This fault can only be removed by joint action of the buttermaker and the patron.

OVERRUN.

Under present conditions of sharp and varied competition among creameries it is necessary to the successful operation of a creamery to make the most possible butter out of a given quantity of fat—to get the largest possible legitimate overrun. In the larger creameries a good deal of attention is given to this matter because it is closely connected with the question of profits. In the small creameries comparatively little attention is given to the matter except in a few instances. Our creameries average about 120,000 pounds of butter per year. The usual overrun used to be stated universally as one-sixth or about 16 per cent. When the month's work and payment were figured up and the overrun of butter over butter fat was computed, and deviation from a 16 per cent overrun, whether it was more or less than this amount, was invariably charged to inaccuracy in testing. While the fact was recognized that the amount of water and salt and casein in butter were variable quantities, it was scarcely suspected that skill in butter making could change any of these except, of course, the salt.

which might be added in almost any amount. The Dairy Department at Ames, by a series of experiments and investigations showed that not only could a skillful buttermaker make his overrun almost anything he desired, but that certain buttermakers in successful creameries were already doing it; that a 16 per cent overrun could easily and legitimately be increased to 20 per cent or even 25 per cent overrun. That is, the skillful buttermaker can make butter having in it only 80 per cent of butter fat just as easily and as certainly as he can make butter containing 86 per cent of butter fat. In the one case he would have a 25 per cent overrun and in the other he would have the usual overrun of about 16 per cent. And the butter containing but 80 per cent of butter fat serves the purpose of the consumer, meets all the requirements of any market for flavor or body or qualities of any kind, violates no law either state or national and traverses no regulations of any kind or character. And yet with all these effects so perfectly understood, so often put in print and so thoroughly discussed, very few buttermakers know what their overrun is except from the books of the creamery at the end of the month, and very few creamery managers seem to care whether their buttermaker makes a proper overrun or not, he gets no more nor no less wages on account of his skill or lack of it in this particular. In a few cases the assistant dairy commissioners have found buttermakers claiming that they were getting habitually 20 or 22 per cent overrun, when tests of their butter showed but 12 or 14 per cent.

The average creamery makes about 120,000 pounds of butter a year, not counting in this the centralizing plants. At the average price for last year this butter sells for nearly \$30,000. A difference of only five per cent in the over run would amount to more than \$110 a month for this average creamery, nearly twice the buttermaker's salary. If his butter was so poor in quality as to lose this sum he would be promptly and properly discharged, but there is many a creamery in this state whose income could be easily increased in this particular an amount equal to that here mentioned by a proper increase in the overrun. The larger central plants, with which the smaller plants compete do get this large overrun and competition makes it necessary that the smaller ones who meet this competition shall get as good an overrun as their larger competitors or go out of business because of lack of ability to meet the competition. A difference of only 5 per cent in the over run makes, at last year's prices a cent and a quarter on the pound of butter fat, a difference of that much in the price the creamery can pay the farmer for his butter fat, three-quarters of a million of dollars for the creamery patrons of the state.

Too many creamery managers and buttermakers rely upon their computations at the end of the testing period in computing the overrun. A much better way is to find the overrun directly from the butter by analysis or other test. In such a method there can be no mistakes arising from improper or careless testing. It is in fact one method of determining whether the testing has been accurate or not. One of the central plants of this state regularly employs a chemist to analyze its butter so that proper steps may be taken to increase or decrease the overrun to the proper and legitimate proportion. Other central plants do something similar, so that they know every day from the butter itself just what its contents are and how much of the whole is butter fat and what percentage of overrun. This department in the report of last year, illustrated and explained apparatus designed in this office, for use with the Babcock test, to determine accurately the butter fat content of butter from which the overrun can be computed and the water content may be estimated with considerable accuracy. It is in use in only a few creameries of the State but is quite satisfactory and is the only apparatus in use in our creameries for the purpose. A chemical analysis in the hands of a competent chemist is the only way to get an absolutely accurate estimate of the constituents of a sample of butter, but of course the expense prohibits the smaller creameries from making use of such a system. But approximate results are sufficient in every day work and extremely valuable to the creamery operator.

The question of overrun is of the greatest importance from the standpoint of values and should receive more attention at the hands of the buttermakers and creamery operators.

PREMIUMS ON BUTTER.

During the last ten years there has grown up the practice of paying a creamery more than the published and established official price in all of the markets. A half a cent premium used to be the cause of great pride on the part of the buttermakers whose butter sold for that premium. Now a full cent premium is almost universal, a cent and a half is common, and a cent and three-quarters or even two cents above the market is not by any means unknown. Seconds and firsts sell at the published price of extras and above, and the real extras nearly

or quite two cents above the market. Nearly every creamery visited by the assistant dairy commissioners receives a premium, and only those making the very poorest quality confess to receiving less than extra price. So much is this that it is entirely safe to conclude that there is something vitally wrong at the creamery that does not receive a good premium over the market.

On the other hand this practice of premiums makes it possible for swindlers to induce shipments of butter under promise of high premiums. Nearly every year some creamery manager is induced to ship to some unknown firm by reason of excessive premiums offered, and later is compelled to mourn the loss of the butter so shipped. Reliable commission houses easily show their responsibility by their ratings in the commercial agencies or by unquestionable bank references and it is only the incautious manager than can be deceived by the swindler.

IOWA MANUFACTURES, DAIRY PRODUCTS SECOND.

The following table shows the relative importance of the manufacture of dairy products. The figures are from the United States Census department. The first three here given are the three chief manufactures of the State without regard to other classification. The five classes are selected from a table showing ten chief manufactures of Iowa.

FIVE CHIEF MANUFACTURING INTERESTS OF IOWA—FOOD PRODUCTS

	Number of Establishments	Capital	Salaried Officials		Wage earners	Wages	Miscellaneous Expense	Value of Product	Average Value
			No.	Salaries					
Slaughtering and Meat Packing, wholesale.....	1905 19	\$ 7,297,359	284	\$298,855.00	3,087.	\$1,323,168	\$709,738	\$30,074,070	
	1900 27	6,351,353	193	197,376.00	2,887.	1,203,167	441,586	25,685,044	
Butter, Cheese and Condensed milk.....	1905 657	3,038,629	806	142,779.00	1,180.	695,267	369,497	15,134,027	23.071
	1900 907	3,459,017	413	81,425.00	1,133.	588,653	153,980	15,846,077	17.476
Flour and Grist Mill Products	1905 276	5,216,059	173	135,007.00	770.	399,108	332,980	12,099,493	
	1900 309	4,946,914	172	135,986.00	942.	424,067	244,306	11,012,606	
Food Preparations.....	1905 21	5,199,086	76	98,985.00	977.	337,242	251,659	6,934,724	
	1900 18	2,840,021	83	60,970.00	734.	256,031	228,144	4,597,846	
Canning and Preserving Fruits and vegetables.....	1905 40	1,745,493	82	68,585.00	1,163.	292,512	154,744	2,779,804	
	1900 26	1,087,221	46	27,305.00	699.	184,710	63,185	1,359,958	

These figures note the decrease in number of butter, cheese and condensed milk factories from 1900 to 1905 from 907 factories to 657, with a decrease of capital employed of \$420,318. This sum is not nearly the loss of capital employed, because the changes in the creamery business have closed up many more than the apparent difference of 250 plants. That is, some of the present 657 are new plants and so more than 250 of the 907 have been closed. The average value of capital in 1900 was \$3,813, at which valuation, the capital invested in the 250 plants would amount to \$952,222. The fact that the new creameries now built are larger and have each more capital than was the case five years ago makes the apparent loss of capital appear as first stated. The real subtraction has been far in excess of the \$952,222, just as the real number of closed creameries exceeds 250. Probably 350 different creameries have been closed in the years 1900 to 1905 and a million dollars has been lost in unsalable buildings and machinery.

Notwithstanding the decrease in the number of plants, the number of "salaried officials" has been nearly doubled and the amount paid for salaries has increased in like proportion. The number of wage earners employed is practically the same. That is, notwithstanding the fact that the 657 plants now do nearly the same business as the 907 did in 1900 the number of wage earners has not been changed. But they receive more than \$100,000 more in wages than formerly. A comparison of the other items in the column of wages will show that there has been no corresponding increases of wages in other industries.

"Miscellaneous expenses" is an interesting item. It is evidently too small to include the hauling or other transportation of milk or cream, or freight or commission. The number given is too small to include tubs, and probably does not include such certain and uniform expenses as salt, color and coal, insurance or repairs or expenditures to replace wornout machinery. All of these items, with very small variations are proportioned to the amount of business, and if anything they should be smaller in 1905 than in 1900. Miscellaneous expenses must include various small items not classified above, and doubtless consists largely of the expense of running the business, of securing new patrons, or working up patronage at a distance from the creamery, perhaps of percentage of buyers of cream and their expenses. At any rate, in 1900 Iowa's 907 creameries each had \$169 miscellaneous expenses and they did a business averaging \$17,476. In 1905 we have 657 creameries

each with miscellaneous expenses of \$560 and they do an average business of \$23,071. The average "miscellaneous expenses" have increased more than 140 per cent.

Stated in another way, the 907 creameries did, in 1900, business amounting to \$15,846,077 with a total expense for salaries, wages, and miscellaneous of \$824,068. In 1905, the 657 creameries did a business amounting to \$15,138,027, nearly three-quarters of a million less than in 1900, at an expense for salaries, wages and miscellaneous of \$1,207,543.

The producer of the butter is vitally interested in changes in cost of manufacture for it affects the price he can get for his product. He now pays nearly \$400,000 more to have the state's butter manufactured than he did in 1900.

In the above analysis of the figures, the cheese and condensed milk factories are ignored, for the reason that their combined product is only about a third of a million of dollars and is practically the same now that it was in 1900; if there has been any change, the values are less now than formerly so that any changes in the aggregates must be fully charged to butter factories.

THE "WATER SEPARATOR."

One of the causes of thin and poor cream is the so-called water "separator." Those factories that make any distinction between the different lots of cream offered them pay two cents less a pound for butter fat in "hand-skimmed or water separator" cream, for the reason that it is likely to be 24 hours older than hand separator cream, and so of poorer quality; and also is usually of low per cent and hence the freights on it are greater in proportion to its value in butter fat. Not only does the farmer get less price for his cream raised by the "water" method but he loses very much butter fat in the skimmed milk left by the method. If his water "separator" is of the dilution kind he also spoils his skimmed milk for feeding purposes by diluting it more than 50 per cent.

No deep setting system has yet been devised that is superior in results, either in quality of cream produced or closeness of skimming to the well-known submerged cans of the Cooley system. The Cooley

system went out of date twenty years ago because the power separator at the creamery would get out of the milk enough more butter fat than the Cooley system to pay the charge of ten or twelve cents a hundred pounds for hauling the milk and show a profit besides. Yet in the last two years hundreds of farmers have bought water "separators," inferior to the kinds discarded a score of years since.

The water dilution system is a kind of perennial humbug inflicted periodically upon the agricultural public for the exclusive and personal benefits of their makers and salesmen. The Iowa Dairy Commissioner's Report of 1899 denounces the dilution "separator" as a humbug and quotes from agricultural experiment stations as far back as 1890 to substantiate the statements made. The use of this system is wasteful in the extreme.

The farmer who will partition off one end of his stock tank, put a cover over it to exclude sun and dust, and arrange so that the water from his windmill runs through this part of the tank, has an ideal place to set his milk for hand skimming or to keep his milk or cream for delivery to the creamery. If he skims his milk by this plan he must be content to lose from one-sixth to one-fifth of the butter fat and to take a low price for the butter fat he sells.

CHANGES IN DAIRY LAWS.

In order to prevent the spread of tuberculosis by means of the skimmed milk sent back to the farms by the creameries it is suggested that a law be enacted requiring creameries to heat the skimmed milk to 180 degrees before returning it to the farmers. Pasteurization of the skimmed milk would doubtless result in a smaller amount of tuberculosis among the hogs and calves that consume the skimmed milk. It can be effected at the creameries at very slight cost and a law of this kind would only make compulsory a practice that is already followed by a large number of the milk receiving creameries of the State.

The statutes referring to adulteration of milk and cream were enacted in the present form a number of years ago. Since their enactment not only has the sale of cream to creameries increased to an extraordinary extent but the sale of sweet cream for immediate consumption is increasing very rapidly. The statutes should be amended in such a way as to make certain that the restrictions in regard to sale of adulter-

ated milk apply also and in the same manner to sales of adulterated cream.

The same statutes provide for the punishment of one who sells "unwholesome" milk or cream. There seems to be no law providing penalties for receiving or buying such cream for butter making purposes. That is to say the man who sells "unwholesome" cream may be fined twenty-five to one hundred dollars for his offense, but there is no way to punish the person who buys the cream, makes it into butter and puts this product on the market.

This state has a very strong statute requiring that the apparatus used in the Babcock test shall be efficient and accurate, and under this statute this department has induced the use of scales for weighing the cream samples for testing by general notice of intention to make prosecutions if the cream was not so weighed for testing. But under this statute it is impossible to control manipulation of the test. Accusations and complaints of both lowering the test and raising it are not only common but increasingly so. Lowering of the test might be reached under the general statutes of the State in regard to cheating but some specific statute is needed to cover manipulations of the test in the other direction. Manipulating the test has for its object the deception of the seller of the product tested whether the test is raised or lowered and the laws should provide punishment for the offense.

The shippers of cream complain that not only are their cans used for other purposes than carrying of cream but that they have considerable losses of cans. Other states where milk and cream are largely shipped by rail have laws covering both situations. In Iowa the shipping of milk and cream has developed in the last two or three years and no specific laws are found on the statute books sufficient to meet the present conditions. The situations complained of are sufficiently serious to warrant new laws covering them.

ASSISTANT DAIRY COMMISSIONERS.

The demands for expert advice and assistance among the creameries are more than this office can meet with the force at command. A growing interest in scientific management of creameries and advanced and improved methods of butter making require instruction that the buttermaker can scarcely secure otherwise than at his own creamery while carrying on his work. Hence the work of the assistant commissioners at the creameries has been productive of much improvement of methods and quality of butter made and hence of profits to the factory. Four hundred and fifty-six visits have been made by them to creameries in fifteen months to November 1, 1905. A very few creameries have been found in unsanitary conditions and the management has been given the choice between a thorough renovation of the plant or facing a criminal charge in court. The number of creameries to be visited is so great in proportion to the number of inspectors that it is difficult to make sure that the suggestions are carried out but usually the directions to clean up are followed very promptly.

A good deal of unclean cream and milk has been rejected at the creameries under that section of the statute which forbids the delivery to a creamery of "unwholesome milk or cream." No prosecutions have been brought under this statute for the reason that the delivery of unfit milk and cream is an offense to which the receiver is often a party just as much as the one who delivers. The law would reach only the one who deliveries the unfit material.

The chief service of the assistants among the creameries is in the direction of inducing the adoption and practice of improved methods of butter making. More than half the creameries of the state are co-operative creameries, and are under the management of men whose knowledge of butter making is extremely limited. It often happens that the buttermaker is not able to induce the management to allow him proper appliances for use in carrying out plans and methods that are now considered essential to best results. Under such circumstances the efforts of the assistants are of service in pointing out what are the successful methods and appliances indispensable to them.

INSPECTION OF MILK.

The inspection of milk offered for sale in the fourteen cities of the State having ten thousand population or more is confined to inspection to determine the butter fat contents and to determine whether preservatives have been added. It is not possible with the force and money at the service of this department to make inspection of the sanitary conditions of the cows from which the milk is produced nor the conditions in which they are kept. Such an inspection would be valuable.

The inspection that is made shows that comparatively little milk or cream low in percentage of butter fat is sold. The watering and skimming of milk is not practiced to any alarming extent. The fact that watering or skimming to the point that would make a profit worth while shows at once in the quality makes it poor policy to practice this form of adulteration, and the milkman who expects to remain in the business, and whose reputation is therefore a part of his stock in trade, finds that he cannot afford to do other than sell good milk. The use of preservatives is not so certain to be detected or to be the source of complaint by the patrons. In a good many cases the patron seems to think the milk ought to keep without ice for several days after delivery and complains if it does not, so that the dealer is constantly importuned to furnish milk with superior keeping qualities and of course the easy and cheap method to secure this result is to use a chemical preservative. Formaldehyde is the favorite preservative in use among milkmen for the reason that it is a liquid, easily used, and is cheap, and then it is advertised too under attractive trade names with the assurance that no chemist can detect its presence in the milk. The successful prosecutions maintained by this office is quite conclusive of this claim.

There is a growing tendency among milkmen to have good wagons, to sell their milk in bottles, and to get a higher price than formerly. The cities of Des Moines and Cedar Rapids now have pasteurized milk plants, and each year natural causes have brought about better conditions among milk dealers..

The growth of the city milk inspection in this State is indicated by the following table showing the number of permits for milk dealers issued in the years from 1895 to 1905. The years end in every case on the 4th of July:

1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905
491	566	620	574	676	714	784	821	783	780	827

The milk inspection carried on under the direction of this department affects about one-seventh of the population of the State, as will be seen by the following table:

Cities	Population	Inspectors
Burlington.....	23,201	Dr. W. C. Hummell
Cedar Rapids.....	25,656	Dr. J. W. Griffith
Clinton.....	22,698	P. S. Bannister
Council Bluffs.....	25,802	H. A. Lennox
Davenport.....	35,254	H. J. High
Des Moines.....	62,139	Ray Johnson
Dubuque.....	36,297	Dr. Charles Palen
Fort Dodge.....	12,162	D. C. Benjamin
Keokuk.....	14,641	A. A. Bland
Marshalltown.....	11,544	Dr. E. M. Singleton
Muscatine.....	14,073	Dr. John Tillie
Ottumwa.....	18,197	E. B. Hill
Sioux City.....	33,111	J. E. Huffman
Waterloo.....	12,580	Theo. Peek
Total.....	347,355	

Complaints have been made to this office of the quality of milk sold in several of the smaller cities and towns of the State and some investigations have been made but no alarming conditions have been found to exist.

FARMERS' INSTITUTE MEETINGS.

For several years this department has furnished speakers for farmers' institute meetings and similar occasions. A large number of creameries have been induced to organize meetings of their patrons for the purpose of discussing their interests and the dairy business as affecting their immediate localities. During the past twelve months this office has given assistance at nearly seventy such meetings. The professor of dairying at the State College at Ames and his assistants, the president of the state dairy association, and several other gentlemen not so directly connected with the dairy business have also rendered good service to the dairymen of the State in the same manner.

For a good many years the reports of this office have suggested that more attention be given to such meetings as here mentioned,

and have pointed out the good results likely to follow for the dairy business. In this state about all the dairy industry centers about the creameries. No other business of any kind could have been so permanent and successful under such adverse conditions, with so little thought and attention given to it. It is easy to believe that study and discussion and combined effort would bring from the business larger and more profitable returns. The meetings held have been quite popular for the reason that changing conditions of agriculture have compelled the attention of the farmer to dairying, to the better methods of dairying, so that there is a real demand for information as to how greater profits may be obtained from the business.

AVERAGE WAGES OF BUTTER MAKERS.

Reports of monthly wages paid 468 buttermakers of the State show an average of \$62 per month. Wages run as high as \$150 per month. Very few creameries now operate less than full time and no doubt the average amount received yearly by the buttermakers of the state is fully \$725 to \$750, a total for the State of \$400,000.

CHEESE FACTORIES AND THEIR PRODUCT.

The cheese factories of the State now number twenty-nine and reports have been received from twenty-five of these. Only five of these make as much as 100,000 pounds of cheese, and but one makes as much as 200,000 pounds. The total amount of cheese made is 1,575,646 pounds and practically all of it is sold and consumed in the State. It is an anomalous situation that the greatest dairy state in the west must import all but a small part of the cheese consumed, but the fact remains that the farmers of this State have never taken kindly to the cheese making and cheese factories are only possible under exceptionably favorable conditions.

TWELVE MONTHS' SCORING.

The value of butter depends largely upon its quality, or technically speaking, the score. The estimate put upon it by the butter judge very often points out the defects in the manner and methods of manufacture and how to remedy them. Beginning with March this department has held at Mason City each month a scoring of butter to which the buttermakers of the State were urged to send their butter for scoring and criticism. The number of entries has varied from 58 to 115. Not only is the butter scored and full criticism made and sent to the buttermaker, but the assistant commissioners have personally visited the creameries from which the entries have come with a view of improving conditions and methods. The results obtained have been gratifying and valuable, but might be much more so if a larger number of the creameries could be induced to participate. The work of the assistant commissioners has been much more intelligently directed by reason of the knowledge gained of the butter made in the creameries. By this means they have been able to spend their time among those creameries where the possibilities of improvement were the most obvious, and have not wasted any time with those that are already successful to the highest degree.

QUALITY OF CREAM AND BUTTER.

The quality of milk and cream and its relation to the quality of butter to be made from the same and the price to be obtained for the finished product are of such obvious relation and importance that continual efforts are made to improve the quality, not only by adoption of better methods of manufacture, but by improving the quality of the material from which the butter is to be made. Three-fifths of the butter made in our creameries is made from cream skimmed on the farm. Since the adoption of the hand separator the quality of cream delivered at the creameries has very materially lowered. At the suggestion of numerous creamery operators the dairy commissioner early in the year sent out a card, of which a copy follows, with a suggestion that the same be reprinted for distribution among the patrons, a suggestion that was followed by a large number of creameries.

GOOD BUTTER

CAN BE MADE ONLY FROM CLEAN, SWEET CREAM.

The following suggestions are made in the hope that they will assist in securing better grades of cream from creamery patrons and so reduce present losses to the farmer resulting from low quality cream and butter:

The farm separator must be washed after each time it is used.

Wash the separator and other dairy utensils with a BRUSH and plenty of washing powder. Rinse with hot water. Don't use a cloth.

Skim a cream of 30 to 35 per cent test.

Immediately after separation cool the cream to the lowest possible temperature, 50 degrees or lower.

Never mix warm cream with cold cream. Before mixing, cool the freshly separated cream to the same temperature as that of the cream to which it is added.

Always keep cream cans in cold water, summer and winter.

Don't cover the cans till the cream is cooled. Then keep them closed.

Don't allow cream to freeze. It lessens its value and may interfere with accurate testing.

Deliver cream as often as possible, daily in summer and every other day in winter.

Persuade your creamery to adopt and *enforce* rules for the handling of cream.

Des Moines, Iowa, Feb. 10, 1905.

OLEOMARGARINE.

If the oleomargarine question were no greater elsewhere than it is in Iowa it would call for no comment whatever or attention from any dairymen, but unfortunately it is a persistent evil in those parts of the country where its sale is made possible conditions there existing. There has never been any great demand or sale of oleomargarine in our State because the conditions were not such as to make the sale of it profitable. In addition to this fact this State has the best oleomargarine statute in the United States, a statute forbidding the sale of oleomargarine "having a yellow color." As set forth in last year's report the decision of our supreme court in the case of the State of Iowa against the Armour Packing Co. had the effect of putting out of business nearly all the dealers in the so-called uncolored product, which nevertheless had a slight "yellow color." The fact must not be lost sight of that under the present United States laws, a license permitting the sale of "uncolored" oleomargarine costs the dealer but \$6 and as he usually takes out the license late in the fall or early winter he actually only pays \$4 or \$4.50 for the balance of the year ending June 30th. The license fee is so small that large numbers are induced to

try the business, and if there were a real *bona fide* demand for oleomargarine the figures given below would show an increased production instead of the reverse. The fact is that there is slight demand for oleomargarine and when it is sold for exactly what it is the consumption is relatively small. Since all oleomargarine pays a tax the figures given below are absolutely accurate and come from the Internal Revenue office. The production and sale of oleomargarine for the last six years has been as follows:

UNDER THE NEW LAW.

1905	49,880,982
1904	48,071,480
1903 ¹	71,804,102

UNDER THE OLD LAW.

1902	126,316,472
1901	104,943,856
1900	107,045,028

The oleomargarine business, so far as its manufacture is concerned, unlike the dairy business is in the hands of a very few men, mostly the great meat packers and their immediate friends. They will not easily give up a business of such great profit and they will without the slightest doubt, in the immediate future as they have in the past, use every means that self-interest can devise or unlimited money can secure to weaken or even to repeal the law. They have powerful friends in high places. If the dairymen are too fully satisfied with the victory that has been won for pure butter and honest dealing they will wake up some day and discover that they have deceived themselves. Self-interest still requires that we be on guard. The National Dairy Union and its officials are doing everything in their power to prevent possible steps in the direction of undoing the work that has been accomplished and those interested in dairying everywhere should assist this organization in this work.

RENOVATED BUTTER.

LIST OF RENOVATED BUTTER FACTORIES.

County	Location	Firm Name	Postoffice Address
1 Calhoun	Rockwell City.....	Andrew Wood Co.....	Rockwell City
2 Clayton	McGregor	The J. D. Bickel Produce Co	McGregor.
3 Des Moines.....	Burlington.....	Iowa Grain and Produce Co	Burlington
4 Lee	Keokuk	Iowa Pure Butter Co.....	Keokuk
5 Polk	Des Moines	E. M. Ellingson & Co.....	Des Moines
6 Polk	Des Moines.....	Schermerhorn-Shotwell Co.	Des Moines
7 Polk	Des Moines.....	McRae Bros.....	Des Moines
8 Wayne.....	Humeston.....	James L. Humphrey, Jr....	Humeston
9 Woodbury.....	Sioux City.....	N. R. Hathaway.....	Sioux City

The above list of renovated butter factories shows a decrease of three from the list of last year's report. The stock from which the number of pounds given below is made is collected from all parts of the middle west. There are more renovating factories in Iowa than in all the rest of the country west of the Mississippi river. There is a tendency to concentrate the business in the hands of a few men and a few factories.

Renovated Butter	Year ending July 1, 1902—reports nine factories	Year ending July 1, 1903—reports from thirteen factories	Year ending July 1, 1904—reports from twelve factories	Year ending July 1, 1905 reports from nine fac- tories.
Pounds of Renovated butter made....	4,530,888			10,317,424
Average per factory	503,378			1,146,380
Sold for consumption in Iowa.....	991,333			1,356,304
Shipped outside the State.....	3,539,055			8,961,120

SHOWING AVERAGE MONTHLY PRICE OF FANCY WESTERN CREAMERY BUTTER IN NEW YORK MARKET.

Month	Twelve months ending Nov. 1, 1896.	Twelve months ending Nov. 1, 1897.	Twelve months ending Nov. 1, 1898.	Twelve months ending Nov. 1, 1899.	Twelve months ending Nov. 1, 1900.	Twelve months ending Nov. 1, 1901.	Twelve months ending Nov. 1, 1902.	Twelve months ending Nov. 1, 1903.	Twelve months ending Nov. 1, 1904.	Twelve months ending Nov. 1, 1905.
November ..	\$.2330	\$.2112	\$.2285	\$.2337	\$.2600	\$.2497	\$.2412	\$.2650	\$.2317	\$.2481
December ..	.2300	.2250	.2290	.2160	.2720	.2540	.2510	.2620	.2423	.2626
January ..	.2266	.1900	.2040	.1975	.2650	.2263	.2425	.2762	.2370	.2910
February ..	.2000	.2050	.2042	.2100	.2300	.2250	.2362	.2600	.2517	.2918
March .....	.2185	.1900	.1937	.2075	.2450	.2212	.2240	.2660	.2452	.2907
April .....	.1650	.1840	.1980	.1962	.1960	.2099	.2325	.2725	.2384	.3000
May .....	.1572	.1530	.1540	.1790	.2012	.1900	.2275	.2300	.2012	.2371
June .....	.1550	.1500	.1687	.1681	.1950	.1925	.2194	.2160	.1803	.2049
July .....	.1505	.1500	.1667	.1435	.1900	.1960	.2131	.2012	.1767	.2056
August .....	.1571	.1675	.1691	.2000	.2100	.2050	.1990	.1940	.1793	.2111
September ..	.1600	.1930	.2025	.2262	.2150	.2110	.2170	.2078	.1947	.2064
October .....	.1850	.2290	.2235	.2400	.2190	.2200	.2382	.2100	.2095	.2184
Average val. per lb. for each year.	\$.1883	\$.1885	\$.1971	\$.2065	\$.2378	\$.2185	\$.2416	\$.2417	\$.2140	\$.2467

On account of "premiums" now almost universally received by the makers of firsts and extras, amounting to from one-half a cent to two cents more than the published market prices, the real price received by the creameries is probably a full cent a pound more than the above averages computed from the official daily prices of butter for the last twelve months.

BUTTER PRODUCTION OF THE STATE FOR SIX YEARS.

	1900.	1901.	1902.	1903.	1904	1905
Average pounds of butter per creamery	104,918	105,491	104,152	97.770*	112,084	118,000
Total pounds of butter for all creameries	84,965,062	82,706,944	77,885,696	64,565,970	70,000,000	827,075.88

*In 1904 figures for average the amount made in nine centralizing creameries is not included, but the aggregate is included in the total.

†In 1905 figures for average the amount of butter made in 20 centralizing plants is not included but the aggregate is included in the total.

PROSECUTIONS.

Fourteen persons have been convicted and fined for the sale of adulterated milk during the past year. In each case except one the fine imposed was \$25 and costs; the defendant in the one case having been fined \$100 and costs. These cases were brought in the following cities: Ottumwa, 2; Council Bluffs, 3; Davenport, 6; Sioux City, 3.

Besides the above mentioned prosecutions there are now pending in justice court in Council Bluffs one case for the sale of adulterated milk and one case for the sale of adulterated cream.

In a case brought against a Des Moines dairyman, he was convicted before a local justice and fined \$100 and upon appeal to the district court was discharged, as not guilty, by the jury.

In all of these cases the offense consisted in selling milk containing formaldehyde.

Prosecutions of this kind are hampered by the fact that it is not easy to get the services of a competent chemist.

In the city of Davenport the association of physicians selected one of their number, who made a very large number of analyses of milk, and upon his findings the six cases mentioned above were brought. Five of these cases were brought at one time and the accused persons plead guilty, with the explanation that they had not added anything to the milk directly, but had used a liquid preparation for the purpose of disinfecting their cans after washing and suggested that the formaldehyde found by the chemist got into the milk in that fashion. For this reason the justice assessed the minimum fine of \$25, with a severe

warning for future good behavior. Inside of a month one of the same parties was again arrested and tried and found guilty of selling milk containing formaldehyde, at which time a fine of \$100 was assessed.

TABLE NO. 1

COMPARISONS

	1897
Total No. of creameries and skim stations.....	391
OWNERSHIP.	
Individual.....	504
Co-operative.....	345
Stock company.....	31
State property.....	1
PLAN OF OPERATION	
Separator.....	.....
Gathered cream.....	.....
Combined plant.....	.....
* Exclusive hand separator.....	.....
BASIS OF RECEIVING MILK OR CREAM.	
By the test.....	.....
By weight or measure.....	.....
CREAMERY CHANGES.	
Number of new creameries.....	122
Number of new skim stations.....	.....
Number of plants closed.....	55

*Before 1904 hand separator creameries were included as gathered cream plants
In 1903 twenty-seven skim stations closed; in 1904 forty-four skim stations closed.

TABLE NO. 1.
NUMBER OF CREAMERIES AND CHANGES.

	No. of skims stations closed.					New Plants
THE STATE.....	568	87	47	27	40	
Adair.....	8	1	3			
Adams.....	2		1	3		
Allamakee.....	8					1
Appanoose.....						
Audubon.....	9					
Benton.....	5					1
Black Hawk.....	17					1
Boone.....	2		1			
Bremer.....	21					1
Buchanan.....	9	5				
Buena Vista.....	5					1
Butler.....	19	2		1		3
Calhoun.....	6					
Carroll.....	8	1				
Cass.....	2		1			
Cedar.....	4	1	3	2		
Cerro Gordo.....	6		1			1
Cherokee.....	4		1			1
Chickasaw.....	15	3		1		3
Clarke.....						
Clay.....	6					
Clayton.....	15		2	3		
Clinton.....	7	4	1			
Crawford.....	1		1			
Dallas.....	4	1		4		
Davis.....		1		1		
Decatur.....	1	4				
Delaware.....	24	1		1		
Des Moines.....						
Dickinson.....	5					1
Dubuque.....	24		1			3
Emmett.....	8					
Fayette.....	20					2
Floyd.....	6					
Franklin.....	6	1	2			
Fremont.....						
Greene.....	3					
Grundy.....	7		1			
Guthrie.....	10		1			
Hamilton.....	4	3	2			
Hancock.....	7	1	1	1		
Hardin.....	10	2	2			
Harrison.....	1		1			
Henry.....						
Howard.....	8	1				
Humboldt.....	11		1			1
Ida.....	2					
Iowa.....	7	2				
Jackson.....	14	4				2
Jasper.....	3					
Jefferson.....	3	1	1			1
Johnson.....	1					
Jones.....	15	10				2
Keokuk.....		3	1			1
Kossuth.....	21					
Lee.....	1					1
Linn.....	16	3	3			1
Louisa.....						
Lucas.....		1				
Lyon.....	2					
Madison.....				1		
Mahaska.....	2					
Marion.....	1	1				1
Marshall.....	5					1
Mills.....		2		1		
Mitchell.....	9		1			

TABLE NO. 1—(CONTINUED.)

Counties	No. of creameries	No. of skim stations.	No. of creameries closed.	No. skim stations closed.	New Plants
Monona	1				
Monroe.....	1				
Montgomery.....					
Muscatine.....	2				
O'Brien	5				
Osceola.....	3				1
Page.....	1				
Palo Alto	14			1	
Plymouth.....	3	2			
Pocahontas.....	4	1	1		
Polk.....	5	1	1		
Pottawattamie.....	8	3	2		
Poweshiek	4	2	1	1	2
Ringgold.....					
Sac.....	8				
Scott.....	2	1			
Shelby.....	8	1			
Sioux	7	1			2
Story	8			2	
Tama.....	4				
Taylor.....	3				1
Union	1		1		
Van Buren.....		3			
Wapeello.....	2				
Warren			1		
Washington.....	1		2		
Wayne.....	1	2			
Webster.....	2		1		
Winnebago.....	9	5		2	1
Winneshiek.....	13		1	1	
Woodbury	2				
Worth.....	9	1	2		1
Wright.....	4		2		
The State	568	87	47	27	40

It is impossible to estimate the total number of creamery patrons and total number of cows with any accuracy, for the reason that the larger plants report a very large number of patrons in proportion to the amount of butter that they make. This no doubt arises from the fact that their patronage is shifting and their lists in the course of a year will carry twice as many names as their actual number of patrons on the average. Thus, some names would appear on the lists of other creameries and hence, in a complete report, would be counted twice. There is no way to estimate what proportion of duplications of this kind occur.

Neither is it easy to estimate the number of cows, because the centralizers have no means of knowing how many cows their patrons have, and there is no way to estimate how many cows it takes to make the enormous quantities of butter there is made in these plants.

There are, perhaps, 85,000 creamery patrons and 600,000 cows tributary to the 568 creameries of the State of Iowa.

TABLE NO. 2.

TABLE SHOWING NUMBER OF PATRONS, COWS, CREAMERIES USING COMMERCIAL STARTER AND ACID TEST, CREAMERIES THAT PASTEURIZE THE SKIMMED MILK AND CREAMERIES THAT USE A SKIMMED MILK WEIGHER.

The State.....	488	82,081	355	267,368	229	218	195	206
Adair.....	4	788	2	2,580	2	2		1
Adams.....	2	186	2	1,235	2		1	2
Allamakee.....	7	1,564	5	7,300	1	4		
Audubon.....	8	1,054	8	9,126	6	2	5	2
Benton.....	3	356	1	840	1	1		
Black Hawk.....	16	2,074	12	11,410	9	10	10	10
Boone.....	2	186	1	800	1	1	2	1
Bremer.....	20	1,494	12	10,996	9	10	4	12
Buchanan.....	9	1,630	3	4,499	6	4	5	2
Buena Vista.....	5	817	3	2,822	1	1	1	
Butler.....	17	2,014	9	6,208	5	5	7	10
Calhoun.....	5	1,582	3	2,715	2	2	1	2
Carroll.....	6	2,276	4	1,487	4	2	1	2
Cass.....	2	180	2	1,260			1	
Cedar.....	4	412	4	3,405				1
Cerro Gordo.....	4	1,542	3	2,240	1	1	1	
Cherokee.....	2	298	2	1,800	1	1	1	
Chickasaw.....	15	2,675	9	10,499	4	6	5	6
Clay.....	5	575	3	3,500	5	4	4	1
Clayton.....	14	2,177	11	21,000	7	5	2	
Clinton.....	2	111	2	845	7	6	7	2
Crawford.....	1	1,500			1	1		
Dallas.....	3	407	1	960	2	1	2	
Davis.....								
Delaware.....	24	2,055	21	26,327	10	12	12	12
Dickinson.....	5	624	4	2,575	3	2	2	2
Dubuque.....	20	2,205	12	11,800	7	8	2	2
Emmet.....	6	264	6	2,481		1	4	
Fayette.....	20	2,548	15	20,584	9	10	12	7
Floyd.....	5	1,192	2	4,645	2	2		
Franklin.....	5	1,760	5	4,830	2	2	2	2
Fremont.....								
Greene.....								
Grundy.....	11	784	5	6,475	6	5		
Guthrie.....	9	1,431	7	6,606	7	3		
Hamilton.....	4	686	4	5,535	2	4		
Hancock.....	7	882	7	9,155	2	3		
Hardin.....	10	1,314	8	8,922	5	6		
Harrison.....	1	75	1	420	1	1		
Henry.....								
Howard.....	8	1,186	6	7,482	1	2		
Humboldt.....	9	929	7	5,865	1	2		
Ida.....	2	232	2	1,709	1	1		
Iowa.....	7	720	6	4,079	4	2		
Jackson.....	9	1,048	6	4,026	5	2		
Jasper.....	2	179	1	800	1	1		
Jefferson.....	1	80	1	700	1	1		
Johnson.....								
Jones.....	12	1,202	6	6,942	5	2		

TABLE NO. 2—CONTINUED.

Counties.	No. of creameries reporting.	No. of patrons reported.	No. of creameries reporting number of cows.	No. of cows reported.	No. of creameries using commercial starter.	No. of creameries using test for acidity of cream.	No. of creameries that pasteurize skimmed milk.	Using skimmed milk weigber.
Keokuk.....	21	625	17	12,272	8	4	12	15
Kossuth.....	12	1,519	8	8,010	8	8	5	7
Lee.....	2	800	2	1,800	1	1		1
Linn.....								
Louisa.....								
Lucas.....								
Lyon.....								
Madison.....								
Mahaska.....								
Marion.....	1	400	1	1,900	1			
Marshall.....								
Mills.....								
Mitchell.....	9	1,928	7	11,981	1	4	1	
Monona.....	1	87	1	500				
Monroe.....	1	85	1	665			1	
Montgomery.....								
Muscatine.....	1	135	1	600				
O'Brien.....	5	920	3	3,840	2	4		2
Osceola.....	2	505	1	1,500	1	1	1	
Page.....					1	1		
Palo Alto.....	14	1,803	14	10,540	7	4	7	12
Plymouth.....	2	286	2	1,754	1	1		2
Pocahontas.....	2	250				1		1
Polk.....	5	6,114	1	400	4	3	1	
Pottawattamie.....	3	702	1	650	4	3	3	1
Poweshiek.....					3	2	2	
Ringgold.....								
Sac.....	8	785	6	4,290		1		
Scott.....								
Shelby.....	8	810	6	3,698	2		1	
Sioux.....	5	1,172	6	10,578	3	3		
Story.....	7	1,014	6	5,925	2	8	4	5
Tama.....	2	193	2	1,454	2	2	2	
Taylor.....	2	1,180			1	1		
Union.....								
Van Buren.....								
Wapello.....	1	70	1	500	1	1	2	1
Warren.....	1	54						
Washington.....								
Wayne.....						1		
Webster.....	2	713	1	400	1	1		
Winnebago.....	8	1,124	6	7,607	3	5	6	5
Winneshiek.....	13	2,867	9	17,418	1			
Woodbury.....	2	7,000	1	8,000	2	2		
Worth.....	8	809	8	5,630	5	5	5	2
Wright.....	4	682	2	3,300		1		
The State.....	483	82,031	265	367,368	228	218	195	206

HAND SEPARATORS.

The total number of hand separators given in the foregoing table is doubtless too large, for the reason that the number of patrons, and likewise, the number of hand separators used, as reported from the centralizing plants evidently carry a good many duplications, because of the shifting character of the patronage of the various centralizing plants, and for that reason the number 49,130 hand separators reported is perhaps five to seven thousand too large. The fact remains, however, that fully one-half the butter of the State is made from cream skimmed by hand separators. Not only the twenty centralizing plants of the State, but seventy-one others, receive practically nothing but hand separator cream, and a total of seventy-six plants are receiving cream shipped by rail. The managers of certain of the smaller creameries have been enterprising enough to get into territory other than their own and induce the shipment of cream to them, rather than to the larger centralizers, a plan which every creamery ought to follow if it has easy access to a territory not already covered by a local creamery.

TABLE No. 8.

Counties.	No. of creameries reporting hand separators.
The State	208
Adair	8
Adams	1
Allamakee	7
Audubon	6
Benton	8
Black Hawk	10
Boone	2
Bremer	1
Buchanan	6
Buena Vista	5
Butler	9
Calhoun	5
Carroll	6
Cass	2
Cedar	4
Cerro Gordo	4
Oberrooke	3
Ohicaw	11
Olay	5
Olayton	13
Clinton	1
Crawford	1
Davis	

TABLE NO. 2—CONTINUED.

Decatur			3	
Delaware	10	392	2	1
Dickinson	4	286	6	
Dubuque	12	1422	1	2
Emmet	6	142	1	1
Fayette	7	480	2	1
Floyd	4	518		
Franklin	5	642		2
Fremont				
Greene	1	6	1	1
Grundy	5	127	1	
Guthrie	10	486		
Hamilton	4	167		1
Hancock	7	690	4	2
Hardin	9	416		2
Harrison	1	20		
Henry				
Howard	5	264		
Humboldt	6	360		
Ida	2	290	2	
Iowa	5	161		
Jackson	8	770	2	1
Jasper	2	62		
Jefferson			1	
Johnson	11	34		
Jones	11	545		1
Keokuk				
Kossuth	18	651		
Lee			1	1
Linn	10	622	6	2
Louisa				
Lucas				
Lyon	2	225		
Madison				
Mahaska				1
Marion	1	150		1
Marshall				1
Mills				
Mitchell	7	294	1	
Monona	1	45		
Monroe	1	45		1
Montgomery				
Muscatine	1	55		
O'Brien	5	700	1	2
Osceola	2	465	1	1
Page	1	1906	1	1
Palo Alto	3	119		
Plymouth	2	167	1	
Pocahontas	2	290	2	1
Polk	5	6,013	4	4
Pottawattamie	2	440	1	2
Poweshiek	1	260		
Ringgold				
Sac	7	427	2	
Scott	1	69	1	1
Shelby	2	440	6	1
Sioux	6	1,775	5	2
Story	4	118		

TABLE NO. 3—CONTINUED.

Tama.....	2	152	1	1
Taylor.....	2	1,240	2	2
Union.....	1	750	1	1
Van Buren.....				
Wapello.....	1	3		1
Warren.....	1	2		
Washington.....				
Wayne.....			1	1
Webster.....	1	600	1	1
Winnebago.....	5	183	1	
Winneshiek.....	13	959	1	2
Woodbury.....	2	6,800	2	2
Worth.....	6	291		
Wright.....	4	554	2	1
The State.....	368	49,130	91	76

FOR THE YEAR ENDING JULY 1, 1905.

506 creameries make.....	75,345,028 pounds
20 centralizing creameries included make,.....	17,627,108 pounds
486 creameries, not centralizers, make.....	57,717,920 pounds
an average of 118,000 pounds for the local creameries of the state.	
On this average, the 548 creameries, other than the twenty centralizers mentioned above, make..	65,080,480 pounds
20 centralizers of the state make,.....	17,627,108 pounds
Total creamery butter made in the state, 568 plants, which is the largest amount of creamery made butter ever reported.	82,707,588 pounds
The average price of butter for the twelve months in which the above amount of butter was made was 24.28 cents, New York Extras.	
At this value the 82,707,588 pounds of butter had an aggregate value of.....	\$20,081,000
For the next preceding twelve months the creameries of the state made 70,000,000 pounds of butter and the average price was 21.83, and the aggregate value was.....	15,281,000
Increase in value.....	\$4,800,000

The table herewith shows that from 736,373,890 pounds of milk and 141,369,998 pounds of cream, 75,345,028 pounds of butter have been made. It takes approximately 23 pounds of milk, or a little more than 3 pounds of cream to make a pound of butter. On this basis the pounds of milk given would make approximately 30,000,000 pounds of butter and the pounds of cream given would make 45,000,000 pounds of butter. From these figures, it is seen that three-fifths of the butter of the State is made from gathered cream, largely, of course, hand separator cream.

TABLE NO. 4.

TABLE SHOWING NUMBER OF POUNDS OF MILK RECEIVED, NUMBER OF POUNDS OF CREAM RECEIVED, POUNDS OF BUTTER MADE, POUNDS SOLD TO PATRONS IN IOWA AND SHIPPED OUTSIDE THE STATE, SO FAR AS REPORTED BY THE CREAMERIES.

Counties.	Number Reporting	Pounds of milk received.	Pounds of cream received.	Pounds of Butter Made, and Market for Same.			
				Pounds of butter made.	Pounds sold to patrons.	Pounds sold in Iowa.	Pounds shipped out of the state.
THE STATE.....	506	736,373,890	141,369,998	75,345,028	3,202,423	3,239,009	68,812,997
Adair	5	4,374,000	1,450,000	678,835	21,858	11,432	643,545
Adams.....	2	1,720,000	137,803	105,881	1,910	9,750	94,221
Allamakee.....	7	1,929,000	4,453,520	1,361,102	19,268	36,415	1,205,419
Appanoose.....	---	---	---	---	---	---	---
Audubon.....	8	17,468,251	1,298,671	1,291,211	81,884	8,040	1,201,337
Benton	3	---	1,242,000	342,000	4,400	---	337,000
Black Hawk ...	15	31,066,401	3,080,280	2,227,483	153,949	311,768	1,761,768
Boone.....	2	3,934,214	19,677	180,086	10,172	11,300	15,614
Bremer	21	55,858,344	---	2,399,736	204,974	124,419	2,070,343
Buchanan.....	8	32,366,181	519,869	1,619,467	156,224	26,209	1,437,044
Buena Vista....	5	1,852,911	1,854,221	697,900	23,342	7,711	666,247
Butler	17	39,873,101	651,000	1,893,679	152,294	58,489	1,682,793
Calhoun.....	4	1,609,963	1,922,554	728,044	4,542	12,501	711,001
Carroll.....	7	4,823,587	3,309,746	1,325,801	9,905	2,276	1,313,620
Cass.....	2	893,026	305,621	136,956	378	6,957	129,621
Cedar.....	4	1,869,000	544,500	215,410	5,933	43,477	166,000
Cerro Gordo....	4	1,000,000	2,637,600	855,200	29,600	13,750	311,360
Cherokee.....	2	780,000	474,300	193,400	1,300	900	171,400
Chickasaw.....	15	32,762,800	4,366,910	2,596,190	158,751	44,326	2,393,104
Clarke.....	---	---	---	---	---	---	---
Clay.....	6	7,743,000	944,400	633,300	39,720	2,904	600,676
Clayton	14	15,627,800	7,488,635	2,696,516	61,760	35,813	2,691,943
Clinton.....	7	7,598,500	153,040	353,550	10,035	17,657	325,666
Crawford.....	1	---	3,000,000	1,000,000	---	---	1,000,000
Dallas	4	2,587,537	664,858	349,857	15,155	30,960	303,723
Davis.....	---	---	---	---	---	---	---
Decatur	---	---	---	---	---	---	---
Delaware.....	24	55,123,197	2,551,431	3,962,920	262,979	123,561	3,586,300
Des Moines.....	---	---	---	---	---	---	---
Dickinson.....	5	2,996,860	663,611	390,290	19,910	9,250	331,130
Dubuque.....	21	26,558,496	4,577,412	2,323,314	95,451	169,960	2,062,993
Emmet.....	7	6,139,000	569,055	430,860	31,310	2,000	397,560

TABLE NO. 4—CONTINUED.

Counties.	Number Reporting.	Pounds of milk received.	Pounds of cream received.	Pounds of Butter Made, and Market for Same.			
				Pounds of butter made.	Pounds sold to patrons.	Pounds sold in Iowa.	Pounds shipped out of the State.
Fayette	20	51,854,710	2,077,318	2,855,428	236,755	2,548	2,626,125
Floyd	5	---	4,104,300	1,082,900	25,635	84,000	1,014,265
Franklin	6	6,888,100	1,172,800	841,250	20,600	21,200	799,450
Fremont	---	---	---	---	---	---	---
Greene	---	---	---	---	---	---	---
Grundy	6	15,595,600	789,800	929,280	75,920	4,250	849,099
Guthrie	10	11,366,400	1,752,300	1,015,600	30,860	50,580	934,160
Hamilton	4	12,563,000	787,500	727,840	81,100	1,400	645,840
Hancock	7	4,159,000	2,124,600	795,410	20,625	900	772,885
Hardin	10	27,273,873	---	---	---	---	---
Harrison	1	1,028,000	27,200	52,600	2,900	5,100	45,500
Henry	---	---	---	---	---	---	---
Howard	8	5,804,660	1,505,244	790,386	42,200	7,138	741,048
Humboldt	10	8,882,800	1,064,400	656,785	41,070	6,500	609,215
Ida	2	---	585,800	205,000	4,250	6,000	196,750
Iowa	7	12,977,900	260,120	680,180	64,150	122,700	493,320
Jackson	13	12,460,050	2,628,850	1,388,090	27,100	45,600	1,315,390
Jasper	2	2,976,600	169,000	179,315	11,085	1,820	166,416
Jefferson	2	1,382,213	219,300	115,190	4,340	15,000	95,850
Johnson	1	---	80,000	27,000	---	20,220	6,880
Jones	13	37,568,249	1,824,332	2,281,169	102,658	94,837	2,033,665
Keokuk	---	---	---	---	---	---	---
Kossuth	21	31,235,586	1,961,055	1,868,650	145,343	27,465	1,695,842
Lee	---	---	---	---	---	---	---
Linn	13	17,239,490	2,529,475	1,460,812	46,857	178,310	1,235,646
Louisa	---	---	---	---	---	---	---
Lucas	---	---	---	---	---	---	---
Lyon	2	770,760	803,280	871,970	2,835	1,725	866,410
Madison	---	---	---	---	---	---	---
Mahaska	1	---	380,000	94,000	---	10,000	84,000
Marion	1	---	401,000	126,800	5,700	22,500	98,600
Marshall	---	---	---	---	---	---	---
Mills	---	---	---	---	---	---	---
Mitchell	9	471,700	4,527,020	1,318,045	49,062	217,070	1,051,913
Monona	1	---	130,540	40,000	400	75	39,525
Monroe	1	1,225,480	109,800	86,140	6,800	16,250	63,590
Montgomery	---	---	---	---	---	---	---
Muscatine	1	---	232,640	62,800	300	26,700	24,800
O'Brien	5	3,204,718	2,342,760	761,892	19,451	11,300	731,131
Osceola	2	630,000	887,150	415,720	4,000	---	411,720
Page	1	---	3000,000	1,000,000	---	100,000	900,000
Palo Alto	14	20,295,643	783,684	1,450,744	158,482	43,185	1,249,067
Plymouth	3	3,485,700	416,240	293,000	16,250	870	275,890
Pocahontas	3	275,000	651,450	235,180	2,360	1,140	230,630
Polk	5	2,854,000	5,866,842	2,167,483	5,225	558,900	1,503,358
Pottawattamie	5	6,466,465	1,880,810	1,277,110	600	26,000	1,260,511
Poweshiek	3	2,566,465	1,064,810	365,610	---	---	365,610
Ringgold	---	---	---	---	---	---	---
Sac	8	2,769,795	1,766,598	657,663	22,275	670	634,718
Scott	1	---	160,000	40,500	1,000	12,500	27,000
Shelby	8	4,977,185	1,222,802	650,469	30,735	4,345	615,383
Sioux	6	---	2,968,230	1,150,299	13,235	1,790	1,144,274
Story	7	12,815,880	684,785	766,010	133,580	30,930	307,330
Tama	4	2,201,615	451,740	277,900	1,140	7,100	269,600
Taylor	2	---	4,500,000	1,160,670	2,500	7,200	1,150,970

NINETEENTH ANNUAL REPORT OF THE

TABLE NO. 4—CONTINUED.

Counties.	Number Reporting.	Pounds of milk received.	Pounds of cream received.	Pounds of Butter Made, and Market for Same.			
				Pounds of butter made.	Pounds sold to patrons.	Pounds sold in Iowa.	Pounds shipped out of the State.
Union.....	1	-----	2,250,000	750,000	-----	50,000	700,000
Van Buren.....	-----	-----	-----	-----	-----	-----	-----
Wapello.....	2	760,000	760,900	290,590	2,600	84,950	252,080
Warren.....	1	6,426,400	1,887,540	693,031	3,000	3,000	687,031
Washington.....	-----	-----	-----	-----	-----	-----	-----
Wayne.....	-----	-----	-----	-----	-----	-----	-----
Webster.....	2	255,110	969,000	314,280	770	17,300	205,210
Winnebago.....	9	20,720,295	745,357	1,141,955	90,773	12,969	1,038,273
Winneshek.....	13	-----	7,531,772	2,045,697	37,137	15,620	1,992,940
Woodbury.....	2	-----	12,617,650	4,846,920	1,700	200,000	4,645,220
Worth.....	8	11,188,340	1,230,390	669,991	97,475	12,070	560,446
Wright.....	4	-----	1,700,000	522,950	20,145	6,500	496,305
THE STATE.....	506	736,873,890	141,369,998	75,845,028	3,202,422	3,230,609	66,612,937

DAIRY COMMISSIONER'S REPORT.

RAILROAD BUTTER SHIPMENTS.

Through the kindness of the freight officials of the various railroads of the state, this office is able to give the following table, showing the number of pounds of butter shipped from each county in the state to points outside the state. The railroads report the gross weight, but the table given herewith shows the net weight, which is found by subtracting sixteen per cent of the gross weight.

COUNTIES SHIPPING MORE THAN 1,000,000 POUNDS, NET, OF BUTTER IN THE YEAR ENDING SEPTEMBER 30, 1904.

1905	Counties,	1904
8,073,301	Woodbury	
5,827,811	Polk	
3,149,763	Clayton	
2,795,297	Bremer	
2,567,858	Dubuque	
2,474,109	Delaware	
2,404,826	Lee	
2,399,885	Page	
2,365,884	Fayette	
2,286,816	Jones	
2,146,074	Chickasaw	
1,954,725	Butler	
1,909,405	Kossuth	
1,828,982	Carroll	
1,919,209	Winneshiek	
1,839,524	Buchanan	
1,784,368	Mitchell	
1,695,892	Linn	
1,681,811	Hardin	
1,569,576	Sioux	
1,542,515	Jackson	
1,470,080	Hamilton	
1,393,854	Cerro Gordo	
1,338,071	Black Hawk	
1,331,858	Adair	
1,327,657	Audubon	
1,301,753	Union	
1,296,697	Allamakee	
1,081,466	Palo Alto	
1,070,783	Calhoun	
1,042,955	Howard	
1,008,803	Grundy	
1,006,208	Buena Vista	
1,004,439	Crawford	
9,950,905	Totals	55,572,797

These 14 counties ship 74 per cent. of the 91,561,561 net pounds of butter shipped from State.

TABLE SHOWING TOTAL NET BUTTER SHIPMENTS OF THE STATE FOR THE
YEARS 1890 TO 1935 INCLUSIVE, FROM IOWA TO POINTS OUTSIDE THE STATE;
ALSO INCREASE OR DECREASE AS COMPARED WITH THE YEAR PRECEDING

TABLE SHOWING NET POUNDS OF BUTTER SHIPPED OUT OF THE STATE, AS
REPORTED BY THE RAILROADS.

,
,
,
,
,
,
,
,
,
,

TABLE SHOWING NET POUNDS OF BUTTER SHIPPED OUT OF THE STATE,
AS REPORTED BY THE RAILROADS.

Counties	1904	1905	Increase	Decrease
Guthrie	840,372	97,488	-----	742,884
Hamilton	1,158,909	1,470,080	311,171	-----
Hancock	481,609	778,070	296,461	-----
Hardin	1,681,403	1,681,311	92	-----
Harrison	283,609	30,000	-----	253,609
Henry	52,879	13,009	-----	39,870
Howard	1,007,981	1,049,955	41,974	-----
Humboldt	727,719	668,452	-----	69,267
Ida	192,767	212,124	19,357	-----
Iowa	810,441	494,717	-----	315,724
Jackson	1,800,738	1,543,515	257,223	-----
Jasper	231,000	131,523	-----	99,477
Jefferson	98,103	117,174	19,071	-----
Johnson	271,771	37,044	-----	234,727
Jones	2,850,641	2,286,316	-----	564,325
Keokuk	-----	-----	-----	-----
Kossuth	1	-----	-----	-----
Lee	3	-----	-----	-----
Linn	1	-----	-----	-----
Louisa	-----	-----	-----	-----
Lucas	-----	-----	-----	-----
Lyon	-----	-----	-----	-----
Madison	-----	-----	-----	-----
Mahtaska	-----	-----	-----	-----
Marion	-----	-----	-----	-----
Marshall	-----	-----	-----	-----
Mills	-----	-----	-----	-----
Mitchell	1	-----	-----	-----
Monona	-----	-----	-----	-----
Monroe	-----	-----	-----	-----
Montgomery	-----	-----	-----	-----
Muscatine	-----	-----	-----	-----
O'Brien	-----	-----	-----	-----
Osceola	-----	-----	-----	-----
Page	-----	-----	-----	-----
Palo Alto	1	-----	-----	-----
Plymouth	-----	-----	-----	-----
Pocahontas	-----	-----	-----	-----
Polk	8	-----	-----	-----
Pottawattamie	-----	-----	-----	-----
Poweshiek	-----	-----	-----	-----
Ringgold	-----	-----	-----	-----
Sac	-----	-----	-----	-----
Scott	-----	-----	-----	-----
Shelby	-----	-----	-----	-----
Sioux	1	-----	-----	-----
Story	-----	-----	-----	-----
Tama	-----	-----	-----	-----
Taylor	-----	-----	-----	-----
Union	-----	-----	-----	-----
Van Buren	-----	-----	-----	-----
Wapello	-----	-----	-----	-----
Warren	-----	-----	-----	-----
Washington	-----	-----	-----	-----
Wayne	-----	-----	-----	-----
Webster	-----	-----	-----	-----
Winnebago	-----	-----	-----	-----
Winneshek	1	-----	-----	-----
Woodbury	5	-----	-----	-----
Worth	-----	-----	-----	-----
Wright	-----	-----	-----	-----
The State	75	-----	-----	-----

CREAMERY LIST.

In addition to the following 568 creameries and 87 skimming stations there are 1081 purchasing agents reported by 20 central creameries. It is evident that this report is not complete and it is estimated that there are 1250 to 1300 purchasing agents for cream in the State.

Office Record	Location.	Name of Creamery.	How operated.	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager.	Name of Butter Maker	Separator or Machinery	Method of Test
ADAMS COUNTY								
1	Adair	Adair Co-op. Creamery Co.	Co-op.	M. L. McManus, Secy.	.....	O. E. McIntire	S & G O	Test
2	Arbor Hill	Arbor Hill Co-op Creamery Co.	Co-op.	O. C. Pease, Sec'y & M.	.....	R. J. Erb	S & G O	Test
3	Fontanelle	Blue Grass Creamery Co.	Indiv.	A. L. Stewart & Co.	.....	L. R. Stewart	S & G O	Test
4	Osoby	Blue Grass Creamery Co. (s)	Indiv.	A. L. Stewart & Co.	.....	.....	S & G O	Test
5	Flak	Blue Grass Creamery Co. (s)	Indiv.	A. L. Stewart & Co.	.....	.....	S & G O	Test
6	Prassia	Blue Grass Creamery Co. (s)	Indiv.	A. L. Stewart & Co.	.....	.....	S & G O	Test
7	Greenfield	Blue Grass Creamery Co. (s)	Indiv.	A. L. Stewart & Co.	.....	.....	S & G O	Test
8	Greenfield	Greenfield Creamery company	Stock	Jas. F. Laude, Sec. &	.....	F. L. Odell	Separator	Test
9	Bradgate	Blue Grass Creamery	Indiv.	A. L. Stewart & Co.	.....	R. E. Brown	S & G O	Test
ADAMS COUNTY								
10	Mt. Etna	Mt. Etna Farmers Mut. O. O.	Co-op.	A. O. Peterson, Sec.	.....	T. O. Abbott	Separator	Test
11	Nevilleville	Farmer's Mut. Co-op. O. Assn.	Co-op.	E. B. Steele, Sec.	.....	O. Borenson	Separator	Test
ALLAMAKEE COUNTY								
12	Dorchester	Little Daisy Creamery	Indiv.	Ben W. Schulte, Prop	.....	Ken W. Schulte	G. Cream	Oil Test
13	Leoslay	Calhoun Creamery Co.	Co-op.	P. E. O'Donnell, Sec.	.....	A. V. Ferrie	G. Cream	Oil Test
14	Postville	Postville Farmers Co-op. O. C.	Co-op.	F. H. Welzel, Sec'y	Postville	Jas. A. Gordon	Hand Sep.	Oil Test
15	Waterville	Farmers Co-op. Creamery Co.	Co-op.	Peter Arneson	Waterville	F. W. Hessel	G. Cream	Oil Test
16	Waukon	Ludlow Co-op. Creamery Co.	Co-op.	F. A. Sanderman, Sec.	Waukon	W. P. Muth	S & G O	Test
17	Quandahl	Arctic Spring Creamery	Indiv.	L. D. Johnson, Prop.	Quandahl	Mikel Bakken	G. Cream	Oil Test
18	Waukon	Farmers Waukon Co-op. O. C.	Co-op.	A. L. White Sec.	Waukon	Jackson Smith	G. Cream	Test
19	New Albion	Farmers Creamery Co.	Co-op.	Mr. Thompson, Pres.	New Albion	E. Rice	S & G O	Test

CREAMERY LIST—CONTINUED.

Office record number	Location.	Name of Creamery.	How Operated.
	BREMER		
63	Bremer		
64	Bremer		
65	Buck Creek		
66	Denver		
67	Denver		
68	Frederika		
69	Readlyn		
70	Readlyn		
71	Sumner		
72	Sumner		
73	Sumner		
74	Tripoli		
75	Tripoli		
76	Tripoli		
77	Denver		
78	Waverly		
79	Waverly		
80	Tripoli		
81	Fairbanks		
82	Sumner		
83	Readlyn		
	BUCHANAN		
84	Aurora		
85	Brandon		

77	Separator	Test
77	3. & G. O.	Test
78	Gath. Or.	Test
79	Gath. Cr.	Test
80	3. & G. O.	Test
81	Separator	Test
82	3. & G. O.	Test
83	4. & G. O.	Test
84	Gath. Cr.	Test
85	Gath. Cr.	Test
86	Gath. Cr.	Test
87	Hand Sep.	Test
88	Hand Sep.	Test
89	3. & G. O.	Test
90	Hand Sep.	Test
91	Hand Sep.	Test
92	Gath. Or.	Test
93	Separator	Test
94	Separator	Test
95	Separator	Test
96	Separator	Test
97	3. & G. O.	Test
98	Separator	Test
99	Separator	Test
100	Separator	Test
101	Separator	Test
102	Separator	Test
103	3. & G. O.	Test
104	3. & G. O.	Test
105	3. & G. O.	Test
106	3. & G. O.	Test
107	Separator	Test
108	Hand sep.	Test
109	Separator	Test
110	Separator	Test
111	3. & G. O.	Test
112	3. & G. O.	Test
113	3. & G. O.	Test
114	Hand sep.	Test
115	Gath. Cr.	Test

CREAMERY LIST--CONTINUED.

Obse number record	Location.	Name of Creamery.	How operated.	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager.	Name of Butter Maker	Separator or Ratheted cream	Method of re- ceiving milk.
116								
117								
118								
119								
120								
121								
122								
123								
124								
125								
126								
127								
128								
129								
130								
131								
132								
133								
134								
135								
136								
137								
138								
139								
140								
141								
142								
143								
144								
145								
146								
147								
148								
149								
150								
151								
152								
153								
154								
155								
156								
157								
158								
159								
160								
161								
162								
163								
164								
165								
166								
167								
168								
169								
170								
171								
172								
173								
174								
175								
176								
177								
178								
179								
180								
181								
182								
183								
184								
185								
186								
187								
188								
189								
190								
191								
192								
193								
194								
195								
196								
197								
198								
199								
200								

140	Meservey.....	Meservey Creamery.....
141	Mason City.....	E. B. Higley Co.....
CHEROKEE COUNTY--		
142	Aurelia.....	Aurelia Creamery.....
143	Marcus.....	White Rose Creamery.....
144	Cherokee.....	Cherokee Creamery.....
145	Washta.....	Washta Creamery.....
CHICKASAW COUNTY--		
146	Boyd.....	Boyd Farmers Creamery.....
147	Alta Vista.....	Alta Vista Farmers Crm. Assn.
148	Devon.....	Devon Farmers Creamery Assn.
149	Alta Vista.....	Deerfield Creamery.....
150	Fredericksburg..	Fredericksburg Butter Factory
151	Ionla.....	.....
152	Jerico.....	.....
153	Lawler.....	.....
154	Little Turkey.....	.....
155	New Hampton.....	.....
156	New Hampton.....	.....
157	Fredericksburg..	.....
158	Nashua.....	Farmers Co-op. Creamery Assn.
159	Nashua.....	Nashua Creamery.....
160	Nth. Washington	Nth. Washington Crm. Co. ..
161	Devon.....	Nth. Washington Crm. Co. (s).
162	Deerfield.....	Nth. Washington Crm. Co. (s).
163	Ionla.....	Nth. Washington Crm. Co. (s).
164	Saude.....	Saude Co-op. Creamery Assn..
165	Williamstown ..	Williamstown Creamery Assn.
CLAY COUNTY--		
166	Dickens.....	Farmers Co-op. Creamery Co.
167	Fosteria.....	Fosteria Creamery Co.....
168	Royal.....	Royal Creamery Co.....
169	Langdon.....	Farmers Co-op Creamery Co...
170	Spencer.....	The Spencer Creamery.....
171	Webb.....	Webb Creamery.....
172	.....	.....
CLAYTON COUNTY		
173	Elkader.....	Elkader Creamery Co.....
174	Edgewood.....	Fidelity Creamery.....
175	Elkport.....	Elkport Creamery.....
176	Farmersburg.....	Farmersburg Co-op Creamery..

OREANERY LIST--CONTINUED.

No.	Name	Type	Test
204	Davis Bloomfield	Stock	Test
205	Pulaski	Stock	Test
206	Drakeville	Stock	Test
207	West Grove	Stock	Test
DECATUR			
208	Leroy	Indiv.	Test
209	Van Wert	Indiv.	Test
210	Lamoni	Indiv.	Test
211	Pleasanton	Indiv.	Test
212	Leon	Indiv.	Test
DELAWARE			
213	Delaware	Co-op.	Test
214	Greeley	Co-op.	Test
215	Colesburg	Co-op.	Test
216	Manchester	Co-op.	Test
217	Hopkinton	Co-op.	Test
218	Petersburg	Co-op.	Test
219	Delaware	Co-op.	Test
220	Earlville	Indiv.	Test
221	Earlville	Indiv.	Test
222	Manchester	Co-op.	Test
223	Manchester	Indiv.	Test
224	Masonville	Co-op.	Test
225	Almora	Stock	Test
226	Delhi	Co-op.	Test
227	Petersburg	Co-op.	Test
228	Manchester	Co-op.	Test
229	Thorp	Co-op.	Test
230	Sand Spring	Co-op.	Test
231	Ryan	Stock	Test
232	Ryan	Stock	Test
233	Broadway	Stock	Test
234	Ryan	Indiv.	Test
235	Onida	Indiv.	Test
236	Dundee	Co-op.	Test
237	Elmer	Indiv.	Test
DICKINSON			
238	Lake Park	Co-op.	Test
239	Milford	Co-op.	Test
240	Spirit Lake	Co-op.	Test

ONLY A FEW LISTED.

[illegible]

CREAMERY LIST—CONTINUED.

Office record number.	Location.	Name of Creamery.	How Operated	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager.	Name of Butter Maker.	Separator or Gatherer	Method of re-cooling milk.
GRUNDY COUNTY—								
309	Aplington	Buck Grove Creamery	Co-op.		Aplington	J. G. Ellinger	Separator	Test.
310	Ackley		Indiv.	M. J. Hallman, Secretary	Ackley	Frank Schutser	Separator	Test.
311	Dike		Co-op.	H. E. Smith, Secretary	Dike	J. P. Christensen	S. & G. C.	Test.
312	Fredsville		Co.	J. A. McLaughlin, Sec.	Cedar Falls, B. N.	A. Kindberg	S. & G. C.	Test.
313	Stout		Co-op.	J. O. Hames, Secretary	Stout	T. M. Diger	S. & G. C.	Test.
314	Reinbeck		Co-op.	A. O. Curila, Secretary	Reinbeck	P. L. Case	Hand Sep.	Test.
315	Fern		Co-op.	F. F. Wilcox	Reinbeck	B. T. Soles	S. & G. C.	Test.
GUTHRIE COUNTY—								
316	Bayard		Co-op.	M. J. Hallman, Secretary	Bayard	L. B. Winn	Gath. Or.	Test.
317	Casey		Stock.	H. E. Smith, Secretary	Casey	O. H. Matavers	S. & G. C.	Test.
318	Guthrie Center		Co.	J. A. McLaughlin, Sec.	Guthrie Center	J. M. Taff	S. & G. C.	Test.
319	Glendon		Co-op.	J. O. Hames, Secretary	Glendon	J. T. Girard	Separator	Test.
320	Menlo		Co-op.	A. O. Curila, Secretary	Stuart	E. H. Colbert	S. & G. C.	Test.
321	Panora		Indiv.	F. F. Wilcox	Panora	F. F. Wilcox	Separator	Test.
322	Stuart		Co-op.	C. M. Cady, Secretary	Stuart	A. Cochran	S. & G. C.	Test.
323	Yale		Stock.	W. H. Hall, Manager	Yale	D. C. Bethlow	S. & G. C.	Test.
324	Dale City		Co-op.	S. C. Hummer, Secretary	Redfield	F. E. Howard	Separator	Test.
325	North Branch		Co-op.	E. B. Hughes, Secretary	North Branch	Geo. Jnat	S. & G. C.	Test.
HAMILTON COUNTY—								
326	Ellsworth		Co-op.	S. Stenberg, Sec.	Ellsworth	D. W. Mohler	S. & G. C.	Test.
327	Williams		Co-op.	S. Stenberg, Sec.	Ellsworth		Separator	Test.
328	Radcliffe		Co-op.	S. Stenberg, Sec.	Ellsworth		S. & G. C.	Test.
329	Jewell		Indiv.	Gronbeck & Morck, Prop's	Jewell	Chris Morck	S. & G. C.	Test.
330	Jewell		Indiv.	Gronbeck & Morck, Prop's	Jewell		S. & G. C.	Test.
331	Randall		Co.	H. N. Miller, Sec.	Randall	H. N. Miller	Separator	Test.
332	Stanhope	Stanhope Creamery	Indiv.	E. C. Brewer, Prop.	Stanhope	W. I. Diger	Gath. Or.	Oil-test

HARBOCK COUNTY—									
822	Britt	Britt Co-op Creamery Co.	Co-op.	H. O. Jackson, Sec.	Britt	H. L. McNary	S. & G. O.	Test.	
824	Duncan	Britt Co-op Creamery Co. (s)	Co-op.	H. O. Jackson, Sec.	Britt	H. L. McNary	S. & G. O.	Test.	
825	Crystal Lake	Crystal Lake Creamery Co.	Co-op.	H. O. Jackson, Sec.	Crystal Lake	L. A. Nelson	S. & G. O.	Test.	
826	Goodell	Goodell Creamery Co.	Co-op.	H. O. Jackson, Sec.	Goodell	Guy Thomas	Hand Sep.	Test.	
827	Garner	Garner Creamery	Indiv.	H. O. Jackson, Sec.	Garner	H. C. Schults	Hand Sep.	Test.	
828	Concord	Concord Creamery	Co-op.	H. O. Jackson, Sec.	Concord	O. B. Conaway	S. & G. O.	Test.	
829	Kanawha	Kanawha Creamery Co.	Co-op.	H. O. Jackson, Sec.	Kanawha	B. O. Brownell	Hand Sep.	Test.	
830	Woden	Woden Creamery	Indiv.	H. O. Jackson, Sec.	Woden	L. U. Peterson	Hand Sep.	Test.	
HARDIN COUNTY—									
841	Alden	Alden	Co-op.	T. E. Huston, Sec.	Alden	N. H. Trimble	S. & G. O.	Test.	
842	Buckeye	Buckeye	Co-op.	E. A. Garriel, Sec.	Buckeye	G. H. Whitney	S. & G. O.	Test.	
843	Cleves	Martin & Johnson Prop.	Indiv.	Martin & Johnson Prop.	Ackley	A. J. Gilmer	S. & G. O.	Test.	
844	Eldora	Peter Jensen, Prop.	Indiv.	Peter Jensen, Prop.	Eldora	E. J. Steuved	S. & G. O.	Test.	
845	Hubbard	J. K. Towley, Sec.	Co-op.	J. K. Towley, Sec.	Hubbard	J. W. Mohler	S. & G. O.	Test.	
846	Hubbard	Ernest Hiker, Sec.	Co-op.	Ernest Hiker, Sec.	Hubbard	Hol. Sames	S. & G. O.	Test.	
847	Iowa Falls	W. L. Whinery, Sec.	Co-op.	W. L. Whinery, Sec.	Iowa Falls	J. J. Ross	S. & G. O.	Test.	
848	New Providence	W. T. Kersey, Sec.	Stock.	W. T. Kersey, Sec.	New Providence	Chas. N. Hart	S. & G. O.	Test.	
849	Radcliffe	Concord & Scott Crm'y Co.	Co-op.	O. E. Fadan, Sec.	Garden City	B. H. Alcorn	S. & G. O.	Test.	
850	Radcliffe	Concord & Scott Crm'y Co. (s)	Co-op.	O. E. Fadan, Sec.	Garden City	B. H. Alcorn	S. & G. O.	Test.	
851	Garden City	Concord & Scott Crm'y Co. (s)	Co-op.	O. E. Fadan, Sec.	Garden City	B. H. Alcorn	S. & G. O.	Test.	
852	Steamboat Rock	Steamboat Rock Crm'y Co.	Co-op.	F. L. Willis, Sec.	Steamboat Rock	M. J. Mawmager	S. & G. O.	Test.	
HARRISON COUNTY—									
853	Magnolia	Magnolia Creamery Co.	Co-op.	F. H. Cadwell, Sec.	Logan R. F. D. 2	G. F. Scott	S. & G. O.	Test.	
HOWARD COUNTY—									
854	Cresco	Cresco	Indiv.	O. W. Pierce	Cresco	O. W. Pierce	S. & G. O.	Test.	
855	Chester	Chester	Co-op.	E. B. Hoopman	Chester	E. B. Hoopman	Gath. Cr.	Oil Test	
856	Elma	Elma	Co-op.	John Whalen	Elma	John Whalen	S. & G. O.	Test.	
857	Elma	Elma	Co-op.	A. J. Herman	Elma	A. J. Herman	S. & G. O.	Test.	
858	Louder	Louder	Indiv.	B. H. Arness	Louder	B. H. Arness	S. & G. O.	Test.	
859	Lime Springs	Lime Springs	Stock.	Allen Gulbranson	Lime Springs	Allen Gulbranson	Gath. Cr.	Oil Test	
860	Protivin	Protivin	Co-op.	J. A. Postal	Protivin	J. A. Postal	Gath. Cr.	Oil Test	
861	Schley	Schley	Indiv.	Schley	Schley	Schley	S. & G. O.	Test.	
862	Saratoga	Saratoga	Co-op.	Henry Fosse	Saratoga	Henry Fosse	Gath. Cr.	Oil Test	

CREAMERY LIST—CONTINUED.

Office record number.	Location.	Name of Creamery.	How operated.	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager.	Name of Butter Maker.	Separator or Handseep.	Method of re-cleaning milk.
HUMBOLDT COUNTY—								
353	Arnold		Co-op.	Charles J. Nelson, Sec.	Arnold	John F. Schultz.	S. & G. C.	Test
354	Bradgate		Co-op.	J. L. Van Horn, Sec.	Bradgate	Fred D. Shifflet.	S. & G. C.	Test
355	Bode		Co-op.	John Pederson, Sec.	Bode	M. H. Rosing.	S. & G. C.	Test
356	Goldfield		Co-op.	O. M. Olansen, Sec.	Goldfield ..	L. M. Tysor.	S. & G. C.	Test
357	Hardy		Co-op.	A. N. Clancy, Sec.	Hardy	Ira O'Neill.	S. & G. C.	Test
358	Humboldt ..		Stock.	G. L. Cruikshank, Sec.	Humboldt ..	L. D. Hill.	S. & G. C.	Test
359	Ottosen		Co-op.	L. J. Clave, Sec.	Ottosen	I. J. Sharsen.	S. & G. C.	Test
370	Benwick		Co-op.	W. M. Huffman, Sec.	Benwick	J. P. Bosh.	S. & G. C.	Test
371	Rutland		Co-op.	S. B. Bartley, Sec.	Rutland	Ben Leanning.	S. & G. C.	Test
372	Thor		Stock.	Lewis Olson, Sec.	Thor	John F. Schultz.	S. & G. C.	Test
373	Arnold		Indiv.	J. F. Schultz, Proprietor.	Arnold			
IDA COUNTY—								
374	Arthur	Arthur Creamery	Indiv.	M. J. Conklin, Sec.	Arthur	M. J. Conklin.	Handseep.	Test
375	Hobbs	Hopkins & Hubbard Creamery	Indiv.	Hopkins & Hubbard	Correctionsville.	Arthur R. Meen.	Handseep.	Test
IOWA COUNTY—								
376	Conroy		Co-op.		Conroy	W. E. Woodcock	Separator	Test.
377	Geoca Bluff		Co-op.		Williamsburg R.	Geo. P. Byrne.	S. & G. C.	Test.
378	Ladora		Co-op.		Ladora	John Baltinger	S. & G. C.	Test.
379	Marango		Co-op.		Marango	W. F. Reid.	S. & G. C.	Test.
380	Victor		Co-op.		Victor	G. W. Baltinger	S. & G. C.	Test.
381	Williamsburg ..		Co-op.		Williamsburg ..	E. M. Montgomery	Separator	Test.
382	Williamsburg ..	York Creamery Co.	Co-op.		Williamsburg R.	Theo. Winter.	Separator	Test.
383	Williamsburg ..	Yorkshire Creamery (s)	Co-op.		Williamsburg R.		Separator	Test.
384	North English ..		Stock.		Ottumwa		Gath. Or.	Test.

JASPER COUNTY—									
383	Fulton	Co-op.	John Helde, Sec.	Fulton	Howard Conlees	Separator	Test.		
386	Moamouth	Indiv	J. P. Younger	Chicago, Ill.	C. E. Mills	S. & G. C.	Test.		
387	Maquoketa	Co-op.	Walter M. Miller, Sec.	Maquoketa	C. O. Poole	S. & G. C.	Test.		
388	Miles	Indiv	John Newman Co.	Elgin, Ill.	A. J. Spohn	S. & G. C.	Test.		
389	Zwingle	Indiv	F. G. Ladd, Prop.	Zwingle	J. T. Mogie	S. & G. C.	Test.		
390	Preston	Co-op.	Samuel McNeil, Sec.	Preston	Jas. B. Smith	S. & G. C.	Test.		
391	Preston	Co-op.	Samuel McNeil, Sec.	Preston	A. J. Negus	S. & G. C.	Test.		
392	Preston	Indiv	John Newman Co.	Elgin, Ill.		S. & G. C.	Test.		
393	Springville	Indiv	John Newman Co.	Elgin, Ill.		S. & G. C.	Test.		
394	Union Center	Indiv	John Newman Co.	Elgin, Ill.		S. & G. C.	Test.		
395	Lamothe	Indiv	N. A. Hoffmann, Prop.	Lamothe	John M. Hoffman	S. & G. C.	Test.		
396	St. Donatus	Indiv	Krier & Dupont, Props.	St. Donatus	P. J. Dupont	S. & G. C.	Test.		
397	Baldwin	Indiv	C. W.	Monticello		S. & G. C.	Test.		
398	Maquoketa	Indiv	E. D.	Maquoketa	C. C. Chittin	S. & G. C.	Test.		
399	Lamothe	Indiv	M. B.	Lamothe	J. C. Nemmers	S. & G. C.	Test.		
400	Maquoketa	Indiv	John Newman Co.	Elgin, Ill.	G. B. Wing	S. & G. C.	Test.		
401	Zwingle	Indiv	F. J. Ladd, Prop.	Zwingle	Frank Thell	Hand-Sep	Test.		
402	Springbrook	Stock	H. H. Hopkins, Pres.	Unblague	E. B. Mike	Hand-Sep	Test.		
JASPER COUNTY									
403	Baxter	Co-op.	H. Krampe, Jr. Sec.	Baxter	H. C. Schettler	Separator	Test.		
404	Newton	Stock	H. A. Bohne, Prop.	Newton	H. A. Bohne	S. & G. C.	Test.		
405	Newburg	Stock	G. Oalden, Sec.	Newburg	H. E. Webb	S. & G. C.	Test.		
JEFFERSON COUNTY—									
406	Fairfield	Co-op.	Jacob Roth, Sec.	Fairfield	G. Y. Ross	S. & G. C.	Test.		
407	Four Corners	Co-op.	C. L. Schuber, Sec.	Four Corners	O. L. Schuber	Separator	Test.		
408	Glendale	Stock	R. N. Morrell, Sec.	Ottumwa		Gath. Or	Test.		
409	Fairfield	Stock	Jas. Melain, Mgr.	Fairfield		Hand Sep	Test.		
JOHNSON COUNTY									
410	Oxford	Indiv.	Adam Flonchinger, Prop.	Oxford	H. Ambler	Gath. Or.	Test.		
JONES COUNTY									
411	Anamosa	Indiv.		Anamosa	Wm. Gierhart	S. & G. C.	Test.		
412	Monticello	Co-op.		Monticello	W. A. Kizer	Separator	Test.		
413	Amber	Co-op.		Chicago	Frank Nickel	S. & G. C.	Test.		
414	Center Junction	Indiv		Chicago	A. E. Robertson	S. & G. C.	Test.		
415	Hale	Indiv	gr.	Hale	W. H. Brownell	Separator	Test.		
416	Langworthy	Stock		Langworthy	J. H. Batchelder	Separator	Test.		
417	Martelle	Co-op		Martelle	S. C. Batchelder	S. & G. C.	Test.		
418	Monticello	Indiv		Monticello	F. B. Kleckner	S. & G. C.	Test.		

CREAMERY LIST—CONTINUED.

Office record number	Location.	Name of Creamery	How operated.	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager	Name of Butter Maker.	Separator or Gathered cream	Method of re-cooling milk.
419	Monticello	Diamond Creamery Co.	Co-op	C. W. Simpson, Manager.	Monticello	W. B. Johnson	S. & G. O.	Test.
420	Monticello	Diamond Creamery Co. (s)	Stock	C. W. Simpson, Manager.	Monticello		S. & G. O.	Test.
421	Monticello	Diamond Creamery Co. (s)	Stock	C. W. Simpson, Manager.	Monticello		S. & G. O.	Test.
422	Monticello	Diamond Creamery Co. (s)	Stock	C. W. Simpson, Manager.	Monticello		S. & G. O.	Test.
423	Monticello	Diamond Creamery Co. (s)	Stock	C. W. Simpson, Manager.	Monticello		S. & G. O.	Test.
424	Monticello	Diamond Creamery Co. (s)	Stock	C. W. Simpson, Manager.	Monticello		S. & G. O.	Test.
425	Monticello	Diamond Creamery Co. (s)	Stock	C. W. Simpson, Manager.	Monticello		S. & G. O.	Test.
426	Oxford Junction	Diamond Creamery Co. (s)	Stock	C. W. Simpson, Manager.	Monticello		S. & G. O.	Test.
427	Oxford Junction	Diamond Creamery Co. (s)	Stock	C. W. Simpson, Manager.	Monticello		S. & G. O.	Test.
428	Wyoming		Stock	C. W. Simpson, Manager.	Monticello		S. & G. O.	Test.
429	Oxford Junction		Stock	John O. Neelans, Secretary	Onslow		Separator	Test.
430	Onslow		Co-op.		Anamosa		Separator	Test.
431	Anamosa		Indiv.		Olin		Separator	Test.
432	Scotch Grove		Co.		Scotch Grove		Separator	Test.
433	Wyoming		Co-op.		Wyoming		S. & G. O.	Test.
434	Monticello		Co-op.	U. N. Winder	Monticello		S. & G. O.	Test.
435	Monticello		Co-op.					
436	Webster	Yorkshire Creamery Co. (s)	Stock	R. N. Morrell, Secretary	Ottumwa		Geth. Or.	Test.
437	Hakeville	Yorkshire Creamery Co. (s)	Stock	R. N. Morrell, Secretary	Ottumwa		Geth. Or.	Test.
438	What Cheer	Grinnell Creamery (s)	Indiv	J. W. Fowler, Proprietor	Grinnell		S. & G. O.	Test.
439	Webster							
440	Hakeville							
441	What Cheer							
442	Webster							
443	Hakeville							
444	What Cheer							
445	Webster							
446	Hakeville							
447	What Cheer							
448	Webster							
449	Hakeville							
450	What Cheer							
451	Webster							
452	Hakeville							
453	What Cheer							
454	Webster							
455	Hakeville							
456	What Cheer							
457	Webster							
458	Hakeville							
459	What Cheer							
460	Webster							
461	Hakeville							
462	What Cheer							
463	Webster							
464	Hakeville							
465	What Cheer							
466	Webster							
467	Hakeville							
468	What Cheer							
469	Webster							
470	Hakeville							
471	What Cheer							
472	Webster							
473	Hakeville							
474	What Cheer							
475	Webster							
476	Hakeville							
477	What Cheer							
478	Webster							
479	Hakeville							
480	What Cheer							
481	Webster							
482	Hakeville							
483	What Cheer							
484	Webster							
485	Hakeville							
486	What Cheer							
487	Webster							
488	Hakeville							
489	What Cheer							
490	Webster							
491	Hakeville							
492	What Cheer							
493	Webster							
494	Hakeville							
495	What Cheer							
496	Webster							
497	Hakeville							
498	What Cheer							
499	Webster							
500	Hakeville							

449	Ledyard.....	Co-op.	E. J. Skinner, Sec.	Ledyard.....	Henry M. Dyer.....	S. & G. C.	Test.
450	Bingsted.....	Co-op.	Philip Ekholm, Sec.	Fenton, R. F. D. 1	August Johnson.....	S. & G. C.	Test.
451	Benton.....	Indiv.	Webster Bros., Props.	Hobart.....	H. F. Jones.....	S. & G. C.	Test.
452	St. Benedict.....	Co-op.		St. Benedict.....	W. J. Domayer.....	S. & G. C.	Test.
453	Bode.....	Co-op.		St. Benedict.....	Chris Bosh.....	Separator	Test.
454	Swes (ly).....	Co-op.		Swes City.....	B. S. Nelson.....	S. & G. C.	Test.
455	Tiltonka.....	Co-op.		Tiltonka.....	Ben Frank.....	S. & G. C.	Test.
456	Lone Rock.....	Co-op.		Lone Rock R. 1.....	Mark Dyer.....	Separator	Test.
457	Whittemore.....	Co-op.		Whittemore.....	A. M. Whitney.....	S. & G. C.	Test.
458	West Bend.....	Stock	J. M. Borde, Sec.	West Bend.....	I. A. O'Neil.....	Separator	Test.
459	Wesley.....	Indiv.	Wesley Bros. Props.	Hobart.....	H. F. Hollenbeck.....	Gash. Or.	Test.
460	LEE COUNTY.						
	New Keokuk.....	Stock	C. S. Pond, V. P. & Gen mgr	Keokuk.....		Hand Sep	Test.
461	Linn County.						
462	Black Creamery.....	Indiv.			O. L. Perry.....	S. & G. C.	Test.
463	Central City Creamery.....	Indiv.			P. W. Sawyer.....	S. & G. C.	Test.
464	Valley Farm Creamery.....	Indiv.			St. Elmo Wright.....	S. & G. C.	Test.
465		Co-op.			J. J. McAreary.....	Separator	Test.
466		Stock			Fred Lehman.....	S. & G. C.	Test.
467		Indiv.			O. C. McOne.....	Hand sep.	Test.
468		Co-op.			C. M. Fiscoer.....	S. & G. C.	Test.
469		Co-op.			Frank Vavrick.....	S. & G. C.	Test.
470		Indiv.			O. E. Batchelder.....	S. & G. C.	Test.
471		Indiv.			J. M. Tupper.....	S. & G. C.	Test.
472		Indiv.			G. R. Batchelder.....	S. & G. C.	Test.
473		Co-op.			H. C. Hemenway.....	Separator	Test.
474		Indiv.			S. W. Laird.....	Separator	Test.
475		Indiv.			W. D. Romine.....	S. & G. C.	Test.
476		Indiv.			H. R. Bullis.....	Hand sep.	Test.
477		Indiv.				Hand sep.	Test.
478	Cedar Rapids.....	Stock					
479	LUCAS COUNTY.						
480	Derby.....	Indiv.	James L Humphrey Jr, prop	Humeston.....		S. & G. C.	Test.
481	Lyon County.						
482	George.....	Indiv.	H. P. Jennings, Proprietor	George.....	Peter Peterson.....	S. & G. C.	Test.
483	Little Rock.....	Co-op.	B. E. Stensel, Sec. & Mgr.	Little Rock.....	O. W. Dabbs.....	Gash. Or.	Test.

CREAMERY LIST—CONTINUED.

Office record number.	Location.	Name of Creamery.	How operated.	Name of Proprietor, Secretary or Mgr.	P. O. Address of Proprietor, Secretary or Manager.	Name of Butter Maker.	Separator or Gath. Cr. or Hand sep.	Method of re-milking milk.
MAHASKA COUNTY—								
433	New Sharon.	New Sharon Separator Ore'm'y	Stock.	W. J. Nicholson, Sec.	New Sharon.	Harry Martin.	S. & G. C. Gath. Cr.	Test
434	Oskaloosa.	Oskaloosa Creamery Co.	Stock.	John Metzger, Manager.	Oskaloosa.			Test
MARION COUNTY—								
435	Pella.	Pella Creamery Co.	Stock.	D. R. Rhynesbarger, Mgr.	Pella.	T. Smorenburg	S. & G. C. Gath. Cr.	Test
436	Pallas.	Beatrice Creamery Co. (s)	Stock.	F. A. Leighton, Manager.	Des Moines.			Test
MARSHALL COUNTY—								
437		Try Ass'n	Co-op.	H. P. Clemons, Sec.	Clemons.	G. R. Jackman.	Gath. Cr.	Test
438			Co-op.	O. J. Olson, Sec. and Mgr.	Dunbar.	U. O. Bomberger	Separator	Test
439			Stock.	Thos. E. Culp, Sec.	Liscomb.	Thos. E. Culp.	Gath. Cr.	Test
440		Or Ass'n	Co-op.	O. Hansen, Manager	State Center.	G. T. Shaunce.	Gath. Cr.	Oil Test
441			Co-op.	T. A. Davenport, Sec.	St. Anthony.	G. R. Price.	Gath. Cr.	Test
MILLS COUNTY—								
442	Silver City.	Waterloo Creamery Co.	Stock.	Leroy Corlies.	Council Bluffs.		Gv'h. Cr.	Test
443	York.	Waterloo Creamery Co.	Stock.	Leroy Corlies.	Council Bluffs.		Gath. Cr.	Test
MITCHELL COUNTY—								
444	David.		Co-op.	F. M.	David.	M. Fairbrother	Gath. Cr.	Test
445	Osga.	Ass'n	Co-op.	H. L.	Rudd.	Sig. Klencarud.	Gath. Cr.	Oil Test
446	Orchard.	Ass'n	Co-op.	J. W.	Orchard.	M. M. Bandin.	Gath. Cr.	Oil Test
447	Riceville.	Ass'n	Co-op.	F. J.	Riceville.	A. B. Grover.	Gath. Cr.	Test
448	Stacyville.		Indiv.	J. B.	Stacyville.	J. B. Spensley.	S. & G. C.	Test
449	St. Ansgar.	Co.	Co-op.	J. M.	St. Ansgar.	B. Clifff.	Gath. Cr.	Test
450	Tooeville.	Co.	Co-op.	L. C.	Tooeville.	A. M. Nofland.	Hand sep.	Test
451	New Haven.	Ass'n	Co-op.	Fred	Elma.	D. O. Thomas.	Gath. Cr.	Oil Test
452	Osga.	Ass'n	Co-op.	John	Mitchell.	George Helfter.	Gath. Cr.	Test

No.	Municipality	Indiv.	Moorhead	P. D. Nelson	Gath. O.	Test.
508	Moorhead	Indiv.	Moorhead	P. D. Nelson	Gath. O.	Test.
509	Montrose	Indiv.	Albia	W. A. Elder	S. & G. C.	Test.
510	Muncatone Co.	Indiv.	Wilton Junction	E. E. Henson	Gath. Or.	Test.
511	O'Brien Co.	Indiv.	West Liberty		Milk	Test.
512	German town	Stock.	German town	Wm. Gehrls	S. & G. C.	Test.
513	Hartley	Indiv.	Hartley	W. Webster	Gath. Or.	Test.
514	Pringle	Indiv.	Correctionsville	Geo. Bristol	Gath. Or.	Test.
515	Sheldon	Indiv.	Sheldon	M. Hauer	Hand Sep.	Test.
516	Paulina	Stock.	Paulina	W. Strampe	S. & G. C.	Test.
517	Oscola Co.	Indiv.	Ashton	C. W. Davis	S. & G. C.	Test.
518	Ashton	Indiv.	Sibley	Dick Congrove	Hand Sep.	Test.
519	Allendorf	Co-op.	Allendorf		Gath. Or.	Test.
520	Pack County	Stock.	Clarinda	Herman Beck	Hand Sep.	Test.
521	Clarinda	Stock.	Clarinda			
522	Palo Alto Co.	Co-op.	Ayrshire	Fred Shellman	Separator	Test.
523	Ayrshire	Co-op.	Cylinder	E. P. Conrad	Separator	Test.
524	Cylinder	Co-op.	Ourlew	B. R. Stratton	Separator	Test.
525	Ourlew	Co-op.	Emmetsburg	N. H. Knudsen	Separator	Test.
526	Emmetsburg	Stock.	Emmetsburg	W. D. Kueker	Separator	Test.
527	Fairville	Co-op.	Cylinder	J. N. Bruck	Separator	Test.
528	Graettinger	Co-op.	Emmetsburg	J. W. Finnell	S. & G. C.	Test.
529	Graettinger	Co-op.	Mallard		S. & G. C.	Test.
530	Graettinger	Co-op.	Graettinger R. 2		Separator	Test.
531	Osgood	Co-op.	Emmetsburg R. 3		Separator	Test.
532	Graettinger	Co-op.	Ruthven R. D. 1		Separator	Test.
533	Graettinger	Co-op.	Ruthven		S. & G. C.	Test.
534	Ruthven	Co-op.	Ruthven		S. & G. C.	Test.
535	Rodman	Co-op.	Rodman	U. M. Young	S. & G. C.	Test.
536	West Bend	Co-op.	West Bend	Thos. A. Clarke	S. & G. C.	Test.
537	West Bend	Co-op.	West Bend	Chas. Kanntson	S. & G. C.	Test.
538	West Bend	Co-op.	West Bend		S. & G. C.	Test.
539	West Bend	Co-op.	West Bend		S. & G. C.	Test.

CREAMERY LIST—CONTINUED.

Office record number.	Location.	Name of Creamery.	How operated.	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager.	Name of Butter Maker.	Separator or other machinery used.	Method of re-cooling milk.
PLYMOUTH COUNTY—								
530	Kingsley	Paynes Creamery	Indiv.	Pa.	Kingsley, Bz A.	Ira Stewart	Hand Sep.	Test.
531	Mammen	Grant Township Creamery Co. (s)	Co-op.	H.	Struble	J. Kennedy	S. & G. O.	Test.
532	Ruble	Farmers M. Co-op. Cream'y Co. (s)	Co-op.	Fr.	Ruble	Wm. Anderson	S. & G. O.	Test.
533	Merrill	Hanford Produce Co. (s)	Stock	J.	Stouk City .....	.....	Hand Sep.	Test.
534	LeMars	Hanford Produce Co. (s)	Stock	J.	Stouk City .....	.....	Hand Sep.	Test.
POCAHONTAS COUNTY—								
535	Laurens	Laurens Creamery	Indiv.	W.	Laurens	E. W. Johnson	Hand Sep.	Test.
536	Pomeroy	Hanford Produce Co. (s)	Stock	J.	Stouk City .....	.....	S. & G. O.	Test.
537	Plover	Plover Creamery Co. (s)	Stock	H.	Plover	Geo. Heathman	Hand Sep.	Test.
538	Pocahontas	Pocahontas Creamery	Indiv.	W.	Laurens	R. B. Lybarger	Hand Sep.	Test.
539	Boile	Gilt Edge Creamery	Indiv.	W.	Boile	W. R. Rogers	S. & G. O.	Test.
POLK COUNTY—								
540	Des Moines	Beatrice Creamer	Stock	P.	Des Moines	Meervin Powers	Hand sep.	Test
541	Grimes	Grimes Butter &	Stock	W.	Grimes	A. L. Rosenberg	Separator	Test
542	Campbell	Grimes Butter &	Stock	W.	Grimes	S. & G. O.	S. & G. O.	Test
543	Des Moines	Des Moines Cream	Stock	B.	Des Moines	W. S. Gould	Hand sep.	Test
544	Des Moines	Capital Creamery	Stock	K.	Des Moines	R. K. Blood	Hand sep.	Test
545	Des Moines	Crystal Spring Cr	Indiv.	M.	Des Moines	Wm. McWilliam	Hand sep.	Test
POTTAWATTAMIE COUNTY—								
546	Avoca	Avoca Creamery	Indiv.	P.	Avoca	M. Larsen	Hand sep.	Test
547	Walnut	Prarie Rose Creamery Co. (s)	Co-op.	J.	Walnut .....	.....	Separator	Test
548	Connell Bluffs	Waterloo Creamery Company	Stock	L.	Omaha, Ne.	A. O. Zimmerman	S. & G. O.	Test
549	Underwood	Waterloo Creamery (s)	Stock	L.	Omaha, Neb.	.....	S. & G. O.	Test
550	Minden	Waterloo Creamery Co (s)	Stock	L.	Omaha, Neb.	.....	S. & G. O.	Test
551	Minden	Minden Creamery	Indiv.	N.	Minden	N. F. Jorgensen .....	.....	Test

POWERS COUNTY—															
553	Guernsey	Indiv.	John Newman Company	Elgin, Ill.	O. W. Hicks	S. & G. C.	Test	553	Early	Indiv.	Charles A. Dermo, Prop.	Early	O. A. Dermo	S. & G. C.	Test
554	Grinnell	Indiv.	J. W. Fowler, Proprietor	Grinnell	Chas. Foodewise	Gath. Or.	Test	559	Herring	Indiv.	M. B. Wright	Herring	M. W. Wright	S. & G. C.	Test
555	Brooklyn	Indiv.	J. W. Fowler, Proprietor	Grinnell		Gath. Or.	Test	560	Lake View	Indiv.	J. P. Thos	Lake View	O. B. Holliday	S. & G. C.	Test
556	Beaumont	Indiv.	J. W. Fowler, Proprietor	Grinnell		Gath. Cr.	Test	561	Nemaha	Co-op.	Clark N. I	Nemaha	M. M. Lewis	S. & G. C.	Test
557	Hartwick	Indiv.	John Newman Company	Elgin, Ill.	Wm. Thies	S. & G. C.	Test	562	Odebolt	Co-op.	J. A. Ora	Odebolt	Ed McFarland	S. & G. C.	Test
	Montezuma	Indiv.	John Newman Company	Elgin, Ill.	John Cane	Gath. Or.	Test	563	Schaller	Indiv.	Perry Rut	Schaller	Perry Rubendall	Hand Sep.	Test
BAO COUNTY—								564	Schaller	Co-op.	Albert Ze	Schaller	M. P. O'Grady	Hand Sep.	Test
558	Early	Indiv.	Charles A. Dermo, Prop.	Early	O. A. Dermo	S. & G. C.	Test	565	Wall Lake	Indiv.	Thos. A. I	Wall Lake	D. A. Provost	S. & G. C.	Test
559	Herring	Indiv.	M. B. Wright	Herring	M. W. Wright	S. & G. C.	Test	SCOTT COUNTY—							
560	Lake View	Indiv.	J. P. Thos	Lake View	O. B. Holliday	S. & G. C.	Test	566	Long Grove	Indiv.	J. M. Merr	Long Grove	J. W. Blair	Gath. Cr.	Test
561	Nemaha	Co-op.	Clark N. I	Nemaha	M. M. Lewis	S. & G. C.	Test	567	Davenport	Stock	F. A. Wat	Davenport	H. D. Wendt	Hand Sep.	Test
562	Odebolt	Co-op.	J. A. Ora	Odebolt	Ed McFarland	S. & G. C.	Test	SHELBY COUNTY—							
563	Schaller	Indiv.	Perry Rut	Schaller	Perry Rubendall	Hand Sep.	Test	568	Corley	Co-op.	A. O. Dineen, Sec.	Avoca	W. F. Pettes	Hand Sep.	Test
564	Schaller	Co-op.	Albert Ze	Schaller	M. P. O'Grady	Hand Sep.	Test	569	Earling	Stock	O. E. Leehr, Sec.	Earling	S. F. Stephane	Hand Sep.	Test
565	Wall Lake	Indiv.	Thos. A. I	Wall Lake	D. A. Provost	S. & G. C.	Test	570	Harlan	Co-op.	Geo. H. Miller, Sec.	Harlan	M. Jensen	Hand Sep.	Test
SCOTT COUNTY—								571	Jacksonville	Co-op.	R. Rasmussen, Sec.	Harlan, B. No. 5	P. Nyman	Separator	Test
566	Long Grove	Indiv.	J. M. Merr	Long Grove	J. W. Blair	Gath. Cr.	Test	572	Kirkman	Co-op.	S. C. Jensen, Secretary	Kirkman, B. No. 1		S. & G. C.	Test
567	Davenport	Stock	F. A. Wat	Davenport	H. D. Wendt	Hand Sep.	Test	573	Kirkman	Indiv.	Peter H. Anderson, Prop.	Marne, B. No. 1		Hand Sep.	Test
SHELBY COUNTY—								574	Portsmouth	Indiv.	N. A. Sorenson, Prop.	Portsmouth		Hand Sep.	Test
568	Corley	Co-op.	A. O. Dineen, Sec.	Avoca	W. F. Pettes	Hand Sep.	Test	575	Walnut	Co-op.	J. D. Lorentzen, Sec.	Walnut, B. No. 3	Christ Beck	Separator	Test
569	Earling	Stock	O. E. Leehr, Sec.	Earling	S. F. Stephane	Hand Sep.	Test	576	Shelby	Stock	L. Corliss, Vice Pt. & Mgr.	Omaha, Neb.		S. & G. C.	Test
570	Harlan	Co-op.	Geo. H. Miller, Sec.	Harlan	M. Jensen	Hand Sep.	Test	SIOUX COUNTY—							
571	Jacksonville	Co-op.	R. Rasmussen, Sec.	Harlan, B. No. 5	P. Nyman	Separator	Test	577	Alton	Indiv.		Alton	Geo. H. Mueller	Hand Sep.	Test
572	Kirkman	Co-op.	S. C. Jensen, Secretary	Kirkman, B. No. 1		S. & G. C.	Test	578	Granville	Stock				S. & G. C.	Test
573	Kirkman	Indiv.	Peter H. Anderson, Prop.	Marne, B. No. 1		Hand Sep.	Test	579	Hesper	Indiv.			Emil Zoer	Gath. Or.	Test
574	Portsmouth	Indiv.	N. A. Sorenson, Prop.	Portsmouth		Hand Sep.	Test	580	Hawarden	Indiv.			Mike Flach	Hand Sep.	Test
575	Walnut	Co-op.	J. D. Lorentzen, Sec.	Walnut, B. No. 3	Christ Beck	Separator	Test	581	Hull	Indiv.			J. L. Curtis	Hand Sep.	Test
576	Shelby	Stock	L. Corliss, Vice Pt. & Mgr.	Omaha, Neb.		S. & G. C.	Test	582	Rock Valley	Indiv.			John L. Clark	Hand Sep.	Test
SIOUX COUNTY—								583	Sioux Center	Indiv.			E. DenHorder	Hand Sep.	Test
577	Alton	Indiv.		Alton	Geo. H. Mueller	Hand Sep.	Test	584	Inwood	Co-op.			H. C. Nelson	Gath. Or.	Test
578	Granville	Stock				S. & G. C.	Test								
579	Hesper	Indiv.				Gath. Or.	Test								
580	Hawarden	Indiv.				Hand Sep.	Test								
581	Hull	Indiv.				Hand Sep.	Test								
582	Rock Valley	Indiv.				Hand Sep.	Test								
583	Sioux Center	Indiv.				Hand Sep.	Test								
584	Inwood	Co-op.				Gath. Or.	Test								

CREAMERY LIST—CONTINUED.

Office record number.	Location.	Name of Creamery.	How operated.	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager.	Name of Butter Maker.	Separator or gathered or both.	Method of testing milk.
STORY COUNTY								
585	Ames	Iowa State College	Indiv.	G. L. McKay	Ames	J. F. Barrette	S. & G. O.	Test.
586	Cambridge	Camb'dge Farm's Co-op Crm Co	Co-op	M. F. Ding, Secretary	Cambridge		T. & G. O.	Test.
587	Closed							
588	Gilbert Station	Farmers Co-o Creamery Co.	Co-op.		Hilbert Station	C. P. Lake	S. & G. O.	Test.
589	Huxley	Huxley Farmers Co-op Crm. Co.	Co-op.		Huxley	P. J. Severaid	Separator	Test.
590	Roland	Roland Farmers Creamery Co.	Co-op		Roland	Geo. Wick	Separator	Test.
591	Story City	Story C. Creamery Co.	Co-op.		Story City	R. J. Severaid	Separator	Test.
592	Slater	Slater F. Creamery Co.	Co-op.		Slater	M. T. Nae	Separator	Test.
593	Zeasing	Zeasing Creamery Co.	Stock		Zeasing	R. E. Hadley	S. & G. O.	Test.
TAMA COUNTY								
594	Chelsea	Springbrook Creamery	Indiv.	John Newman To.	Elgin, Ill.	John Bucher	S. & G. O.	Test
595	Hibron	Springbrook Creamery	Indiv	John Newman Co.	Elgin, Ill.	Olvas. Bucher	S. & G. O.	Test
596	Tama	Tama Co-op. Creamery Co.	Co-op.	L. I. Carson, Sec.	Tama	W. H. Graham	Hand sep.	Test
597	Clutier	Clutier Creamery	Indiv	E. D. Armstrong, Prop't.	Clutier	E. D. Armstrong	Gath. Cr.	Test
TAYLOR COUNTY								
598	Clearfield	Clearfield Creamery Co.	Stock.	Joe Donbet, Sec.	Clearfield	George McWair	Hand sep.	Test
599	Bedford	The Bedford Creamery	Indiv.	Frank Dunning, Proprietor	Bedford	Leslie Kloppe	Hand sep.	Test
600	Lenox	Lenox Creamery Co.	Co-op.	J. L. Jacoby, Secretary	Lenox		S. & G. O.	Test
UNION COUNTY								
601	Treston	Clarinda Penkry, Butter and Egg Co.	Stock.	W. T. B. White, Sec'y	Clarinda	J. O. Hall	Hand sep.	Test
VAN BUREN COUNTY								
602	Benaparie	Yorkshire Creamery Co. (s)	Stock.	B. N. Morrell, Sec.	Ottumwa		Gath. Cr.	Test
603	Eliton	Yorkshire Creamery Co. (s)	Stock.	R. N. Morrell, Sec.	Ottumwa		Gath. Cr.	Test
604	Stockport	Yorkshire Creamery Co. (s)	Stock	B. N. Morrell, Sec.	Ottumwa		Gath. Cr.	Test

WAPELLO COUNTY--							
603	Blakesburg	Blakesburg Creamery	Indiv	Poland Bros, Prop's	Blakesburg	Poland Bros	Test
604	Ottumwa	Yorkshire Creamery Co	Stock	R. N. Morrell, Sec	Ottumwa	W. H. Davis	Test
WARREN COUNTY--							
607	Carlisle	Carlisle Creamery	Indiv	H. L. Owens, Proprietor	Carlisle	H. L. Owens	Test
WASHINGTON COUNTY--							
WAYNE COUNTY--							
608	Humeston	Old Colony Creamery	Indiv	Jas. L. Humphrey Jr., Prop.	Humeston	S. Peterson	Test.
609	Lewistown	Old Colony Creamery (s)	Indiv	Jas. L. Humphrey Jr., Prop.	Humeston	S. & G. O.	Test.
610	Corydon	Old Colony Creamery (s)	Indiv	Jas. L. Humphrey Jr., Prop	Humeston	S. & G. O.	Test.
WEBSTER COUNTY--							
611	Duncombe	Duncombe Creamery	Indiv	S. Smith, Proprietor	Duncombe	S. & G. O.	Test.
612	Fort Dodge	Palmier-Hubbard Co	Stock	C. V. Rosenberger, Sec	Independence	S. H. Deucher	Test.
WINNEBAGO COUNTY--							
613	Buffalo Center	Farmer's Co-op. Creamery Co.	Co-op.	Geo. J. Andrews, Secretary	Buffalo Center	A. Woolery	Test.
614		Forest City Co-op. Cr. Ass'n	Co-op.	John Carson, Secretary	Forest City	W. O. Frank	Test.
615		Forest City Co-op. Cr. Ass'n (s)	Co-op.	John Carson, Secretary	Forest City	S. & G. O.	Test.
616		Forest City Co-op. Cr. Ass'n (s)	Co-op.	John Carson, Secretary	Forest City	S. & G. O.	Test.
617		Lake Mills Creamery Co.	Co-op.	J. A. Horvel, Secretary	Lake Mills	Separator	Test.
618		Lake Mills Creamery Co. (s)	Co-op.	J. A. Horvel, Secretary	Lake Mills	Separator	Test.
619		Lake Mills Creamery Co. (s)	Co-op.	J. A. Horvel, Secretary	Lake Mills	Separator	Test.
620			Co-op.	Quamme, Secretary	Rake	Separator	Test.
621			Co-op.	K	Scarville R. D. 1	Separator	Test.
622			Co-op.	Nels	Scarville	Separator	Test.
623			Co-op.	I. I.	Briceville, Minn.	Separator	Test.
624			Co-op.	H. H. Mattison, Secretary	Thompson	Separator	Test.
625			Co-op.	J. T. Talleckson, Secretary	Perille	S. & G. O.	Test.
626			Co-op.	L. O. Peterson	Woden	Separator	Test.
						Hand Sep.	Test.
WINNEBAGO COUNTY--							
627	Burr Oak		Co-op.	Clayton A. Beld, Sec	Burr Oak	Victor Johnson	Oil Test
628	Calmar		Indiv	Boe & Nelson, Proprietors	Calmar	Iver Barlow	Oil Test
629	Decorah		Indiv	Johnson & Krome, Prop's	Decorah	T. N. Beld	Oil Test
630	Fort Atkinson		Stock	H. B. Carpenter, Sec	Elkader	H. B. Forney	Oil Test
631	Peetina		Co-op	H. L. Dessel, Secretary	Ulm, R. F. D. 1	H. B. Forney	Oil Test
632	Highlandville		Indiv	Bidne & Akre, Proprietors	Highlandville	Peter J. Bidne	Oil Test
633	Highlandville		Stock	P. M. Peterson, Secretary	Sp. g Grove, Minn	P. M. Peterson	Oil Test
634	Kendallville		Indiv	Boe, Nelson & Co., Prop's	Kendallville	Ed Helms	Oil Test

CREAMERY LIST--CONTINUED.

IOWA CHEESE FACTORY LIST.

Alphabetically Arranged According to Counties and Towns Near Which Factory is Located, Together with Information Pertaining to Each.

Office record number.	Located at or Near.	Name of Cheese Factory.	How operated.	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager.	Name of Cheese Maker.	Method of re-testing milk.
1	BENTON COUNTY— Atkins	Ideal Cheese Factory.....	Indiv...	A. O. Stewart, Proprietor..	Atkins	A. O. Stewart. . .	Hundred.
	BLACK HAWK COUNTY— BREMER COUNTY—						
2	Janesville.....	The Fowler Co.....	Stock...	Geo. V. Fowler, Manager..	Waterloo	J. McMurray	Test.
	OSAGE COUNTY—						
3	Burchinal.....	Burchinal Cheese Factory.....	Indiv...	T. B. Coates, Proprietor...	Burchinal.....	T. B. Coates....	Test.
	CRAWFORD COUNTY—						
4	Astor.	Astor Cheese company.....	Indiv....	O. A. Olson, Proprietor ..	Astor	Arthur William.	Hundred.

IOWA CHEESE FACTORY LIST—CONTINUED.

Office record number.	Located at or Near.	Name of Cheese Factory.	How operated.	Name of Proprietor, Secretary or Manager.	P. O. Address of Proprietor, Secretary or Manager.	Name of Cheese Maker.	Method of receiving milk.
5	CLARK COUNTY— Weldon	Weldon Cheese Factory.....	Indiv...	L. M. Parr, Proprietor ..	Weldon	L. M. Parr.	Hundred.
6	FLOYD COUNTY— Charles City....	Elm Springs Factory	Indiv...	H. D. White, Proprietor	Charles City	Walter B. Pfeiffer	Hundred.
7	GREENE COUNTY— Dana.	Dana Mutual Co-op. Orm. Company	Co-op...	W. J. Elling, Secretary....	Dana	W. J. Elling.	Test
8	GUTHRIE COUNTY— Jamaica.....	Jamaica Cheese Factory.....	Indiv...	Goreham & Coon, Props....	Jamaica.....	W. E. Goreham	Hundred.
9	HARDIN COUNTY— Iowa Falls.	Ellis Cheese Factory.....	Indiv...	W. I. Clark. Proprietor	Iowa Falls, B. S. B. 18	W. I. Clark.....	Hundred.
10	HOWARD COUNTY— Cresco	Cresco Cheese Factory	Indiv...	Wm. Kellow	Cresco.....	W. M. Lathrop..	Hund.
11	..... Cresco	Clover Leaf Cheese Factory..	Indiv...	J. J. House.....	Cresco.....	J. J. House	Hund.
12	HENRY COUNTY— Noble	The Christner Butter and Cheese Co	Indiv..	O. O. Christner.....	Wayland..	O. O. Christner--	Test.
13	JEFFERSON COUNTY— Pleasant Plain..	Pleasant Plain Cheese Factory.....	Indiv...	J. H. Samsen	Pleasant Plain.....	Fred L. Reynold	Test.
14	..... Veo	Veo Cheese Factory.....	Stock...	H. A. Hoeler.....	Pleasant Plain.....	H. W. Spencer	Test.

15	KEOKUK COUNTY— Talleyrand	Stock ..	L. M. Tucker, Secretary...	Talleyrand	Olifton Tucker..	Test.
	LEE COUNTY— Franklin Station	Stock ..	Chas. Klingler.....	Donnellson.....	A. W. Newell...	Test.
17	MONROE COUNTY— Albia.....	Indiv...	S. G. Bone, Proprietor....	Albia ..	S. G. Bone.....	Hund.
	MARSHALL COUNTY— Liscomb	Stock...	Thomas E. Oulp, Manager.	Liscomb.....	Thos. E. Oulp...	Test.
18	MUSCATINE COUNTY— Wilton Junction	Co-op ..	Fritz Kolb, Secretary.....	Wilton Junction...	Homer Oarson..	Hund.
	POWESHIEK COUNTY— Jacobs	Indiv...	A. C. Payne, Proprietor...	Jacobs	S. M. Payne.	Test.
20	SCOTT COUNTY— Princeton.....	Stock...	Chas. A. Pope.....	Princeton.....	Perry E. Bower & O. A. Hope...	Test.
21	STORY COUNTY— Ames	State. .	G. L. McKay, Manager...	Ames ..	.....	Test.
22	TAYLOR COUNTY— Sharpsburg.....	Indiv...	G. S. Eastlack, Proprietor.	Sharpsburg.....	G. S. Eastlack..	Hund.
23	WASHINGTON COUNTY— Blockton.....	Indiv...	Waldrip & Bonafield, Props	Blockton.....	Waldrip & Bona- field.....	Hund.
24	WEST CHESTER.....	Indiv.	W. E. Leet, Proprietor....	West Chester.....	W. E. Leet	Hund.
25	WAYNE COUNTY— Richland.....	Stock...	B. A. Meachman, Sec. ...	Richland, B. S.....	W. J. Abeer.....	Test.
26	SEWALL.....	Stock...	Ira Banta, Secretary.....	Sewall	Samuel Souder.	Hund.
27	LINEVILLE.....	Indiv...	Mathew DeHaan	Lineville.....	Mathew DeHaan	Hund.
28	SEYMOUR.....	Stock...	E. A. Weagley, Secretary	Seymour	R. E. Spencer..	Hund.

INDEX.

	Page.
Letter of transmittal.....	3
Expense of office of Dairy Commission for year ending November 1, 1905.....	5
Conditions of the Dairy Industry.....	7-10
Price of Butter fat.....	11
Over run	12, 13
Premiums on Butter.....	14, 15
Table—Showing five chief manufacturing interests of Iowa.....	16
The "Water Separator".....	18
Changes in Dairy Laws.....	19, 20
Assistant Dairy Commissioners.....	21
Inspection of Milk.....	22, 23
Farmer's Institute Meetings.....	23
Wages, Average of, of Butter makers.....	24
Cheese Factories and their products.....	24
Twelve months' scoring.....	25
Quantity of Cream and Butter..	25
Oleomargarine	26
Tables of comparison.....	27
Renovated Butter	27
Table—Monthly Average on Fancy Western Creamery Butter....	28
Table—Butter, production for six years.....	29
Prosecutions.....	29
Table of Comparison.....	30
Table No 1.—Number of Creameries and changes.....	31, 32
Table No. 2—Showing number using Acid test.....	33, 34
Hand Separators.....	35
Table No. 3—Showing number creameries reported.....	35, 36, 37
Table No. 4—Showing number pounds butter made	38-40
Table—Showing railroad butter shipments ..	41
Table—Showing butter shipments outside the state	42, 43
Creamery list.....	44-66
Cheese factory list.....	67-69

[illegible]

REPORT

OF THE

Inspectors of Steamboats

TO THE

GOVERNOR OF IOWA

GEO. B. FREEMAN	}	BOAT INSPECTORS
J. W. CHAPEL		
ALONZO A. JENKS		
J. B. THOMPSON		

PRINTED BY ORDER OF THE GENERAL ASSEMBLY

DES MOINES:
BERNARD MURPHY, STATE PRINTER
1905

MASON CITY, IOWA, December 16, 1904.

HON. ALBERT B. CUMMINS, *Governor*,
Des Moines, Iowa.

DEAR SIR—I have the honor to submit herewith my annual report as Inspector of Boats for the year 1904.

Yours truly,

GEO. B. FREEMAN,
Inspector of Boats.

LICENSES GRANTED FOR BOATS.

J. F. YOUNGLOVE BOAT COMPANY, CLEAR LAKE.

Date.	Kind of Vessel.	Name.	Passengers.	Fee.
April 26, 1904	Gasboat	Id-al.	80	\$10

OSCAR STEVENS BOAT COMPANY, CLEAR LAKE.

April 26, 1904	Sailboat	Duck	15	\$ 1
	Sailboat	Gull	25	1
	Sailboat	Swan	25	1
	Sailboat	Featherstone	85	1
	Sailboat	Goldie	15	1
May 8, 1904	Sailboat	Willie	12	1
	Steamboat	I-land Queen	70	10
	Steamboat	Iowa	70	10

GREEN & YOUNG BOAT COMPANY, CLEAR LAKE.

May 5, 1904	Sailboat	Vincent	40	\$ 1
	Sailboat	Hope	20	1
	Sailboat	White Wing	20	1
	Sailboat	Speed	20	1
	Sailboat	Winnibe.	12	1
	Sailboat	Trilby	85	1
	Sailboat	Ino	12	1
	Sailboat	Challenge.	85	1
May 28, 1904	Steamboat	Lady Franklin	200	10
May 28, 1904	Steamboat	Bird	100	10

F. L. JONES BOAT COMPANY, CLEAR LAKE.

April 28, 1904	Gasboat	Tillie B	12	\$ 5
----------------	---------------	----------------	----	------

GEORGE KABINCK BOAT COMPANY, CLEAR LAKE.

April 28, 1904	Sailboat	Puritan	15	\$ 1
----------------	----------------	---------------	----	------

REPORT OF BOAT INSPECTORS.

HOMER W. JOHNSON BOAT COMPANY, CEDAR RIVER.

Date.	Kind of Vessel.	Name.	Passengers.	Fees.
June 27, 1904	Gasboat	Georgia	16	\$ 5

W. H. HILL, CLEAR LAKE.

July 4, 1904	Gasboat	Iroquois	16	\$ 5
--------------	-------------------	--------------------	----	------

T. A. KELTY, CEDAR RAPIDS. (CEDAR RIVER.)

May 8, 1904	Steamboat.	Parlor City	120	\$10
-------------	--------------------	-----------------------	-----	------

POMEROY. (TWIN LAKES.)

April 20, 1904	Steamboat.	Princess	20	\$ 5
----------------	--------------------	--------------------	----	------

H. F. KELLNER, CEDAR RAPIDS. (CEDAR RIVER.)

June 29, 1904	Gasboat	Fontanelle	25	\$10
---------------	-------------------	----------------------	----	------

E. W. HOAG, MANCHESTER. (MAQUOKETA RIVER.)

June 30, 1904	Gasboat	Nimrod.	16	\$ 5
---------------	-------------------	-----------------	----	------

RAPID TRANSIT COMPANY, WATERLOO. (CEDAR RIVER.)

June 30, 1904	Gasboat	Florence	8	\$ 5
---------------	-------------------	--------------------	---	------

E. J. CHAPMAN, WATERLOO. (CEDAR RIVER.)

June 30, 1904	Gasboat	Princess	10	\$ 5
---------------	-------------------	--------------------	----	------

C. C. BOUTTETT, IOWA FALLS. (IOWA RIVER)

June 16, 1904	Gasboat	No. 19.	30	\$10
	Gasboat	No. 40.	30	10

JAMES SAFFORD, LINN SPRINGS. (NORTH IOWA RIVER.)

June 16, 1904	Gasboat	Irene	10	\$ 5
---------------	-------------------	-----------------	----	------

ERICKSON & HORN, LAKE VIEW. (WALL LAKE.)

June 15, 1904	Steamboat.	Defiance.	75	\$.1
---------------	--------------------	-------------------	----	-------

LARSON BROTHERS, LAKE VIEW. (WALL LAKE.)

June 15, 1904	Steamboat.	Lakewood.	250	\$10
	Steamboat.	Tramp	75	10
	Gasboat	Runabout	40	10
	Sailboat	Dispatch	25	1
	Sailboat	Iowa.	10	1

REPORT OF BOAT INSPECTORS.

5

LICENSES GRANTED TO ENGINEERS AND PILOTS.

CLEAR LAKE.

Date.	Name.	Engineer or Pilot.	Fees.
April 26, 1904	J. F. Younglove.....	Pilot	\$ 3
	J. F. Younglove.....	Engineer (gas)	3
June 25, 1904	F. W. Johnson	Engineer (steam)	3
	F. W. Johnson	Pilot.....	3
August 6, 1904	Walter Newgard.....	Engineer (steam).	3
July 8, 1904	W. T. Latimer	Pilot	3

IOWA FALLS.

June 16, 1904	Mat Kickels.....	Engineer (gas)	\$ 3
	Mat Kickels	Pilot.....	3

LINN SPRINGS.

June 16, 1904	James Safford.....	Engineer (gas)	\$ 3
	James Safford.	Pilot.....	3

CHARLES CITY.

June 27, 1904	Homer W. Johnson	Engineer (gas)	\$ 3
	Homer W. Johnson	Pilot	3

POMEROY.

April 20, 1904	Ben Brownell	Engineer (steam).	\$ 3
----------------	--------------------	------------------------	------

CEDAR RAPIDS.

May 3, 1904	T. H. Burdick.....	Engineer (steam).....	\$ 3
-------------	--------------------	-----------------------	------

Total amount received, 1904. \$ 229

REPORT OF BOAT INSPECTORS.

MANSON, IOWA, December 31, 1904.

HON. ALBERT B. CUMMINS, *Governor*,
Des Moines, Iowa.

DEAR SIR—I have the honor to submit herewith my annual report as Inspector of Boats for the year 1904.

J. W. CHAPEL,
Inspector of Boats.

LICENSES GRANTED FOR BOATS.

CASINO AMUSEMENT COMPANY, STORM LAKE.

Date.	Kind of Vessel.	Name.	Passengers.	Fees.
June 23, 1904	Steamboat ...	Queen	\$ 65	\$ 10

E. E. MACK, STORM LAKE.

July 13, 1904	Sailboat.....	Mac.....	\$ 20	\$ 1
---------------	---------------	----------	-------	------

LICENSES GRANTED TO ENGINEERS AND PILOTS.

STORM LAKE.

Date.	Name.	Engineer or Pilot.	Fees.
June 23, 1904	J. S. McSherry.....	Engineer.....	\$ 3
July 13, 1904	Bert M. Mack	Pilot	3
July 13, 1904	Frank W. Mack....	Pilot.....	3
Total amount received, 1904.....			\$ 20

LEON, IOWA, January 18, 1905.

HON. ALBERT B. CUMMINS, *Governor*,
Des Moines, Iowa.

DEAR SIR—I have the honor to submit herewith my annual report as Inspector of Boats for the year 1904.

ALONZO A. JENKS.
Inspector of Boats.

LICENSES GRANTED FOR BOATS.

DAVIS CITY.

Date.	Kind of Vessel.	Name.	Passengers.	Fees.
May 10, 1904	Gasoline Launch....	Defender	20	\$ 5

LICENSES GRANTED TO ENGINEERS AND PILOTS.

DAVIS CITY.

Date.	Name.	Engineer or Pilot.	Fees.
May 10, 1904	E. W. Teal	Engineer.....	\$ 8
Oct. 15, 1904	Jas. Lemmer	Engineer.....	8
Total amount received, 1904.....			\$ 11

HON. ALBERT B. CUMMINS, *Governor*,
Des Moines, Iowa.

DEAR SIR—I have the honor to submit herewith my annual report as Inspector of Boats for the year 1904.

Yours truly,

J. B. THOMPSON,
Inspector of Boats.

LICENSES GRANTED FOR BOATS.

OKOBOJI LAKES.

Date.	Kind of Vessel.	Name.	Passengers.	Fees.
May 12, 1904	Steamboat	"Hiawatha"	80	\$10
	Steamboat	Iowa	80	10
May 18, 1904	Steamboat	River Queen	18	5
May 18, 1904	Steamboat	Queen	225	10
May 25, 1904	Steamboat	A. J. Hopkins	70	10
May 28, 1904	Steamboat	Okoboji	300	10
April 30, 1904	Gasoline	"Yankee Photographer"	5	5
May 9, 1904	Gasoline	Alberta	30	10
May 6, 1904	Gasoline	Iowa	35	10
May 18, 1904	Gasoline	Charlotte	18	5
May 19, 1904	Gasoline	West Side	18	5
May 21, 1904	Gasoline	Manhattan	35	10
May 12, 1904	Sailboat	Golden Rule	40	1
May 28, 1904	Sailboat	Nymph	25	1
June 25, 1904	Sailboat	North Breeze	12	1
July 5, 1904	Sailboat	Nameless	10	1

PETERSON (LITTLE SIOUX RIVER).

July 1, 1904	Steamer	Little Sioux	35	\$ 10
--------------	---------------	--------------------	----	-------

LICENSES GRANTED ENGINEERS AND PILOTS.

SPIRIT LAKE.

Date.	Name.	Engineer or Pilot.	Fees.
March 14, 1904	Otto F. Townsend.	Pilot	\$ 3
June 1, 1904	G. M. Adair	Pilot	3
June 11, 1904	W. A. Gilfillan.....	Pilot	3
Sept. 2, 1904	E. R. Green	Pilot....	3

SPIRIT AND OKOBOJI LAKES.

May 13, 1904	John Haffer.....	Pilot.....	\$ 3
June 18, 1904	F. P. Hopkins.	Pilot	3

OKOBOJI LAKES.

May 27, 1904	G. P Hopkins	Pilot.....	\$ 3
May 28, 1904	Bertram O'Farrell.....	Pilot.....	3
June 14, 1904	Don. C. Henderson	Pilot.....	3
March 14, 1904	Otto F. Townsend.....	Engineer	3
May 2, 1904	O. B Hill.....	Engineer	3
May 18, 1904	John Haffer	Engineer	3
July 14, 1904	Don C. Henderson	Engineer	3
June 18, 1904	F. P. Hopkins.....	Engineer	3
June 16, 1904	Edward Tolson	Engineer	3
August 24, 1904	Ed. Bryans.	Engineer	3
July 23, 1904	H. W. Marey.....	Engineer	3
Sept. 2, 1904	E. R. Greene	Engineer	3

Total amount received, 1904.\$168

